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### 54 Method and apparatus for removing noise data from a digitized image.

(57) An apparatus and method for removing background noise and high frequency noise from an image by comparing each pixel in the image with neighboring pixels defining a variably shaped and

sized kernel. The size and shape of the kernel are optimized for the particular characteristics of the data to be analyzed.

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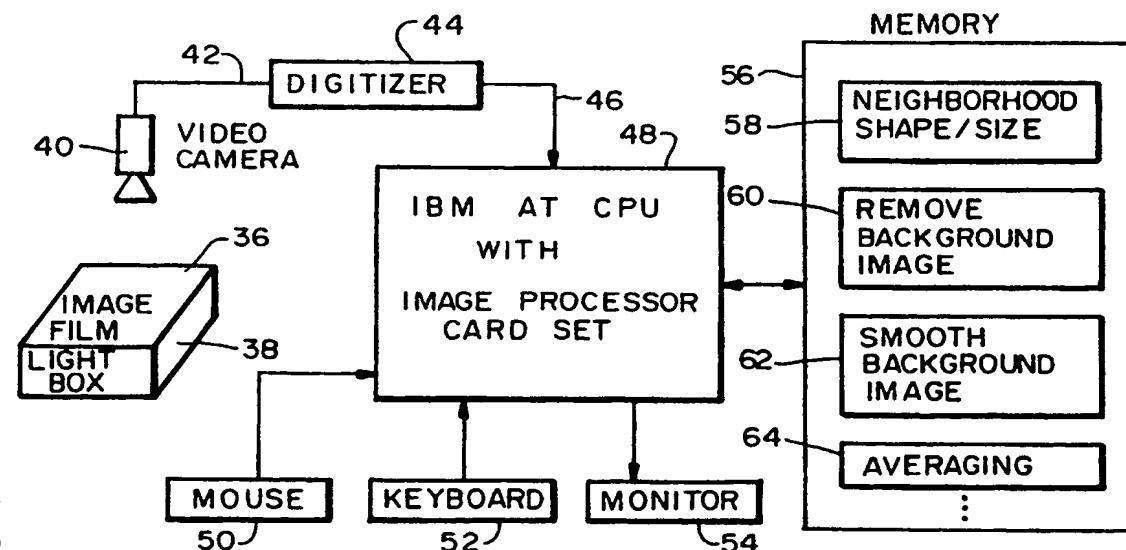


FIG. 3

**METHOD AND APPARATUS FOR GENERATING QUANTIFIABLE VIDEO DISPLAYS****Background of the Invention**

The invention pertains generally to the field of image processing, and, more particularly, to the field of generating quantifiable images from digital images representing data spatially as pixel patterns of greater and lesser intensity.

The preferred embodiment of the invention is adapted for analysis of biological data generated in recombinant DNA research and other biological research. Such data includes 2D gels, DNA sequencing gels, gel blots, RFLP, DNA blots, microtiter color, microtiter fluorescence and other types of data presented spatially in an image. Typically, such images consist of a plurality of pixels with areas of pixels of varying intensity representing some amount of a particular DNA or protein with the intensity attributable to the protein being superimposed upon intensity representing background noise and high frequency noise caused by such things as pinholes in the film, penetration of the film by gamma rays etc.

Although the invention will be described in terms of its application to biological data, it will be appreciated that the teachings of the invention have utility in other fields of analysis of images.

A problem in analyzing such data in the past so as to be able to quantify the amount of a protein represented by a particular area of pixels in the image has been how to separate the intensity representing the data from the intensity caused by background noise. Although pixel intensity is the concept used herein to convey the teachings of the invention, pixel value is the general concept contemplated by the teachings of the invention. That is, the pixel values being analyzed may represent something other than light intensity. For example, each pixel in an image may represent the strength of radio transmissions from a small sector of the sky such that the invention could be used in radio astronomy applications.

In the past, such techniques as rolling ball filters have been used for background noise removal from images. Such a teaching is found in a conference paper by Rutherford et al. entitled "Object Identification and Measurement from Images with Access to the Database to Select Specific Subpopulations of Special Interest" published at the E-O Lase and E-O Imaging Conference sponsored by S.P.I.E., January 1987 with the proceedings published in May of 1987. There, the authors describe a method of background correction, i.e., noise removal, by use of a rolling ball filter which effectively takes the minimum pixel value in the ball filter region as the pixel value for

the background image. The resultant image is then subtracted from the digitized image. A pipeline image array processor is used to perform this process. Such a technique however is not optimized for removal of background noise and high frequency noise in all situations because it does not take into account the varying geometric shapes of the data of interest in many varied application and because it does not take into account other application specific phenomenon such as vertical noise strips, dead spaces etc.

Accordingly, a need has arisen for apparatus and a method to optimize the noise removal process for data presented in many varied spatial formats.

**Summary of the Invention**

According to the teachings of the invention, there is disclosed herein a method and apparatus for background noise removal which uses a variable shape and a variable size kernel or neighborhood of adjacent pixels surrounding or next to the pixel being processed. The value of the pixel being processed is compared to all, or some selected subset, of the pixels in the neighborhood to find the minimum value. This minimum value is then substituted for the value of the pixel being processed. When all pixels have been so processed by comparing them to the values of the surrounding pixels in the corresponding neighborhood (each pixel has its own neighborhood), the resulting image is a "background image". A background image is an image where each pixel has the value of the smallest valued pixel in the neighborhood to which it was compared. Of course, those skilled in the art will appreciate that the background removal process can also be performed on a reverse video image by finding the maximum pixel value in each neighborhood and substituting that value for the value of the pixel of interest corresponding to that neighborhood.

The background image may then be further processed in some embodiments to remove high frequency noise. In one embodiment, high frequency noise is removed by processing the background image to generate a "maximum image", i.e., an image generated from the background image showing the maximum pixel values for each neighborhood in the background image. This maximum image is generated by using a smaller neighborhood than used in generating the background image and then using this smaller neighborhood to process the background image as follows. Each

pixel has its value compared to the values of the pixels in a corresponding neighborhood of surrounding pixels. The maximum value in each neighborhood is then substituted for the value of the corresponding pixel. When this has been done for all pixels, the maximum image is complete. This maximum image is substantially devoid of high frequency, large amplitude noise which dips below the surrounding neighborhood such as is characteristic of pinhole defects in film etc. This maximum image is subtracted from the starting image to generate a "background removed image".

In another embodiment according to the teachings of the invention, the maximum image is used as a starting image in an apparatus to perform a process to remove high frequency, low amplitude noise. In this process, a neighborhood is used which is smaller than the neighborhood used to generate the background image. Each pixel value for a pixel of interest is added to the pixel values for all the other pixels in the corresponding neighborhood. The sum is then divided by the number of pixels in the neighborhood to derive an average pixel value, and the value of the pixel of interest is set equal to this average value. After this is done for all pixels, the resultant image is subtracted from the original image used to generate the background image to arrive at a background removed image.

In another alternative embodiment, the average image may be generated directly from the background image and the resulting image subtracted from the original image to derive the background removed image.

In another alternative embodiment, the image generated by the averaging process may be generated directly from the background image, and the resulting image is used as the input image for the process of generating the "maximum" image. The resulting image is subtracted from the original image to derive the background removed image.

#### Brief Description of the Drawings

Figures 1(a) and 1(b) show, respectively, a typical autoradiograph of a 1-D gel separation and the same image with the data removed leaving only the background intensity showing.

Figure 2 a drawing showing how the data bearing image pixel value profile compared to the background pixel value profile.

Figure 3 is a block diagram of the hardware which can be used according to the teachings of the invention..

Figure 4 is a flow chart for the process for removing background noise from the image.

Figures 5 through 7 illustrate the process of

background noise removal by comparison to neighborhood pixel values.

Figure 8 is a more detailed flow chart of the background noise removal process.

Figures 9 and 10 are alternative processes for selection of kernel size and shape.

Figures 11 and 12 illustrate how different kernel shapes are optimized for various data applications.

Figure 13 is a flow chart for the preferred embodiment of the process of background noise removal.

Figure 14 is a more detailed flow chart illustrating the process of generating a maximum image.

Figure 15 is a more detailed flowchart illustrating the process of high-frequency, low-amplitude noise removal by averaging.

Figure 16 is a flow chart for the process of generating a percent change image.

Figures 17(a) through 17(e) are the components of a quad display and the quad display itself.

Figure 18 is another type of quad display.

Figure 19 illustrates the concept of linked cursors for the quad display.

Figure 20 illustrates the process for alignment of images 1 and 2 which must be performed prior to the computation of values for the cursor locations in the quad display.

#### Detailed Description of the Preferred Embodiment

Referring to Figure 1(a), there is shown an image of a typical autoradiograph of a 1-D protein separation. Each of lanes 10 and 24 contains separated bands of radioactively labeled proteins from different samples. For example, lane 10 contains bands 12 and 14 with the difference in pitch of the crosshatching of band 14 indicating that this band is of greater brightness or intensity than the intensity of band 12. Likewise, bands 16, 18, 20 and 22 in Figure 1(a) all have varying degrees of brightness or intensity. A similar situation exists for lane 24, which is separated from lane 10 by a dead space 26. The varying intensity of each band is indicative of the amount of the particular protein or proteins represented by that band which was present on the gel at that particular position.

It is useful to be able to quantify an image such as shown in Figure 1(a) such that the intensity of the various bands can be measured as an indication of the amount of protein represented thereby. The difficulty with this approach, however, is that the various bands have their intensities superimposed upon background noise which, because of its varying intensity across a lane, causes errors. That is, the background noise can be thought of as forming an image of varying intensity which would

still be present even if there were no data represented in Figure 1(a). Figure 1(b) is a drawing showing this background image. The background image has a lane 10' which corresponds to lane 10 in Figure 1(a) and a lane 24' which corresponds to the lane 24 in Figure 1(a). The differences in pitch in the crosshatching of lanes 10' and 24' conveys in pictorial form the variation in the intensity or brightness of the background noise in the lane at various locations. For example, the area 28 in lane 10' has a brighter background intensity than the area 30. By superimposing the image of Figure 1(a) on the image of Figure 1(b), it can be seen that the relatively brighter intensity of band 14, which overlies an area of lesser intensity in the background image, as compared to a less-bright band 18, which overlies an area of brighter background intensity in Figure 1(b). For this reason, the relative intensities of the bands 14 and 18 cannot be used directly to quantify the amount of protein at those respective positions in the gel without creating errors caused by the varying intensity of the background image along lane 10'. Thus, according to the teachings of the invention, the background image of Figure 1(b) is derived by image processing of the image represented by Figure 1(a), and the resulting image is then subtracted from the image of Figure 1(a) to leave a quantifiable data image.

Referring to Figure 2, there are shown comparative intensity profiles through the image of Figure 1(a) to show the effect of background removal. The intensity trace labeled 32 represents the intensity of the original image which includes both intensity attributable to data as well as intensity attributable to background noise. The trace labeled 34 represent the intensity of the original image after background removal and, therefore, represents the intensity attributable to the quantity of a particular protein located at the corresponding location on the gel.

According to the teachings of the invention, a manually manipulated cursor having a variable size and a variable shape may be placed over any band of interest in the background-removed image to determine the intensity of that band attributable to the presence of a protein of interest. The process of determining the intensity caused by the data essentially involves the process of integrating the trace 34 to determine the area under any particular peak. Typically, the result of this integration will be reported at the touch of a key on a computer keyboard.

Referring to Figure 3, there is shown a block diagram of a computer apparatus according to the teachings of the invention. Image film 36, which contains a spatial depiction of the data to be analyzed, is placed on a light box 38. The light box shines light through the image film to create a

pattern of light which has varying spatial intensity in accordance with the data and the background noise. Also, the image may be acquired by shining light on a nontranslucent film such as a polaroid shot. The resulting light pattern contains the data to be analyzed. This light pattern is converted by a video camera 40 into a video signal on line 42 representing an analog form of a raster-scanned version of the image on film 36. This analog signal is digitized in a data converter interface 44 and results in a stream of digital data on bus 46. This stream of digital data is read by a computer 48 and is stored in memory for further image-processing operations. The computer 48 is typically an IBM ATTM personal computer with an image processor card set plugged into the card slots. The image processor card set is an off-the-shelf, image-processing circuit manufactured by Matrox under the trademark MVP-ATTM Image-Processing Card Set. The computer 48 interfaces with the user through a mouse 50, a keyboard 52 and a monitor 54. An external memory 56 stores data and programs. Several software modules according to the teachings of the invention are shown as stored in memory 56. They are: a neighborhood shape/size interfacing module 58; a background removal module 60; a smoothing module 62; and an averaging module 64. The neighborhood shape/size interface module 58 serves to determine the shape and size of a neighborhood or kernel of pixels the values of which will be compared to the value of a pixel of interest in the kernel to determine the spatial intensity patterns of the background image. Typically, the shape of the neighborhood is determined by the computer for the particular application involved and relates to the typical shape of the data patterns to be analyzed. However, in alternative embodiments, the shape of the neighborhood may be set by the user in any of several different ways. For example, at start-up time, or upon switching applications, the computer can prompt the user through monitor 54 to determine what type of data is to be analyzed. After the user responds, either through the keyboard 52 or the mouse 50, the computer can put up either a textual, verbal or a pictorial menu of neighborhood shapes to be used. The user can then indicate which shape to use either by selecting it with mouse 50 or by typing in the code for the shape via keyboard 52 or by stating the shape. Alternatively, the user may sketch the neighborhood shape and/or size to be used through use of the mouse 50. In some embodiments, the shape of the neighborhood will be selected by the computer 48 based upon the user response regarding what type of data is to be analyzed. In some embodiments, a first neighborhood shape will be used to get rid of particular noise patterns having specific shapes followed by

the use of another shape for the neighborhood which is keyed to the shape of the particular data or application for which the teachings of the invention will be used.

The size of the neighborhood to be used generally depends upon the typical size of the data spatial patterns to be analyzed. In the preferred embodiment, the size of the neighborhood is chosen which has a largest dimension which is two and one-half times the size of the largest data spatial pattern to be analyzed. In the preferred embodiment, the user may be prompted for the desired size for the neighborhood and may respond either in terms of a number or a code for the desired size. Alternatively, the selected shape for the kernel may be displayed on the screen, and the user may adjust the size of the kernel by having the kernel superimposed upon the image to be analyzed and using a "rubber band"-type cursor to adjust the size of the kernel. The details as to how the shape and size of the kernel to be used are selected by the user or by the computer are not critical to the invention.

The details of the remove background image module 60 will be described in greater detail below. The basic function of this module is to determine the level of background intensity throughout the image to be analyzed and to create a background image reflecting that background intensity at all points in the background image. This background image may then be subtracted from the original image in some embodiments to derive a background removed image.

The smooth background image module 62 removes high-frequency, high-amplitude noise (high-amplitude noise for purposes of this invention means noise which dips below the level the surrounding neighborhood) by finding the maximum pixel in each kernel of the background image and setting the value of the pixel of interest in this kernel to the maximum value found in the kernel. When this is done for all pixels and their corresponding kernels "maximum" background image has been completed. This serves to get rid of high frequency, large amplitude noise characterized by pixels of low intensity in the background image such as might be caused by pinholes in the film, gamma rays, etc.

Finally, the averaging module 64 gets rid of high frequency, small amplitude noise in either the background image or the smoothed background image generated by module 62. This is done by averaging all the pixels in a neighborhood and setting the pixel of interest in each neighborhood to the average value. Both modules 62 and 64 will be described in more detail below.

Referring to Figure 4, there is shown a flow chart for a basic embodiment of a process accord-

ing to the teachings of the invention for background removal. The first step, symbolized by block 66, is to acquire the image to be analyzed. Specifically, the image to be analyzed is digitized into a plurality of pixels. These pixels define an image which contains data to be analyzed and displays this data in terms of varying spatial patterns of intensity, color, fill pattern or other means of displaying values for the pixels. How the value for each pixel is depicted is not critical to the invention. Typically, pixel values will be displayed in terms of their intensities. For some applications, the data to be analyzed is shown as dark spots on a lighter background such as autoradiography. In those applications, a "negative" or reverse video image is generated from the acquired image before further processing. In other applications, the data to be analyzed is shown as lighter spots on a dark background. In such applications, the acquired image is used as is without doing a reverse video image. In some embodiments, it is useful to average the original acquired image before further processing to remove the background. This averaging process is identical to the process described below with reference to Figure 15 carried out on the background removed image or the image generated by the process described with reference to Figure 14.

Next, the computer system interacts with the user to select a particular kernel size and/or shape for use in generating the background image, as symbolized by block 68. As noted earlier, the kernel shape is typically selected by the computer based upon the type of data to be analyzed in the preferred embodiment. That is, if the data takes the form of vertical rectangular blocks, as in the case of one-dimensional separations of DNA or proteins, then the preferred kernel shape is usually rectangular. However, if the data to be analyzed takes the form of circular spots such as in DNA library screens, cells tagged with fluorescing antibodies, or images of 96-well microtiter plates, then the preferred kernel shape is circular.

Generally speaking, the size of the kernel should be substantially larger than the size of the largest data area to be analyzed. That is, if the largest data spot to be analyzed is a circle of 2 mm diameter, then the preferred kernel shape and size is a circular area having a diameter sufficient to cause the total area within the kernel to be approximately 2.5 times the radius of the 2 mm diameter data spot. The reason for this size relationship is to insure that at least some background area outside the area of data of interest are included within the kernel. This is necessary to insure that a proper background image is generated. This is because the process of generating the background image involves comparing the value of each pixel in the image to be analyzed to the values of the sur-

rounding pixels to find a minimum value characteristic of the background. Thus, if no background pixels are included within a kernel which happens to be centered over a data spot, then the minimum intensity value which will be found in that kernel will not in fact be representative of background intensity at that location but will be representative of the intensity of the data as superimposed upon the intensity of the background.

As noted earlier herein, the kernel size may be selected by the user using any one of a number of different methods, none of which are critical to the teachings of the invention. Alternatively, the kernel size may be selected by the computer automatically, based on the type of data being analyzed. In the preferred embodiment, the kernel shape is selected by the computer automatically, based upon the data being analyzed, and the kernel size is selected by the user using a "rubber band" cursor to adjust the size of a default kernel which is superimposed over the image of data to be analyzed. The user then touches an edge of the kernel and "drags" it out to an appropriate dimension in some embodiments. In the case of rectangular kernels, the user may touch each of two opposing sides and drag each one individually out to the appropriate dimension so as to obtain the desired size and aspect ratio. This is done after dragging the kernel to a desired position on the image to be analyzed so as to surround the largest area of data shown on the image.

Block 70 represents the process of actually generating the background image using the kernel selected by the user. This process is best understood by reference to Figure 5, which shows a typical kernel or neighborhood 72 of rectangular shape surrounding a pixel of interest 74. Figure 6 shows the relationship of the kernel 72 to the overall image being processed. The pixel of interest 74 is any pixel within the area encompassed by the kernel 72. Although typically the pixel of interest is in the center of the kernel in the preferred embodiment, in alternative embodiments the pixel of interest 74 may be located anywhere within the boundaries of the kernel 72. The pixel of interest 74 is shown in the middle of a raster scan line 76 and is in the middle of a column of pixels 78. As is best seen in Figure 6, the pixel of interest 74 is a single pixel in a line of pixels which together comprise the single raster scan line 76 of the image to be analyzed 80. The image 80 is comprised of 512 raster scan lines like the raster scan line 76 in some embodiments, and there are typically 512 pixels on each raster scan line. The size of the raster is not critical to the invention. The kernel 72 includes several pixels from the raster scan line 76 within its boundaries and includes several other raster scan lines both above and below the raster

scan line 76 although these other raster scan lines are not shown in Figure 6 to avoid unnecessary complexity.

Referring again to Figure 5, the process of generating the background image is accomplished by comparing the value of the pixel 74 to the values of each of the other pixels in the kernel 72 and finding the minimum value pixel and substituting its value for the current value of the pixel 74.

5 For example, assume that the pixel 74 has a value of 5 on a scale from 1 to 10. Assume also that the pixels 82, 84 and 86 in the raster scan line 88 have values of 7, 4 and 1, respectively. When the value of the pixel 74 is compared to the value of the pixel 82, the value of the pixel 74 will be less, and no substitution is made. When the value of the pixel 74 is compared to the value of the pixel 84, it will be found that the value of the pixel 84 is less than that of pixel 74, and a substitution will be made such that the value of pixel 74 is rewritten to be a 4. When pixel 74 is compared to pixel 86, it will be found that pixel 86 has a still smaller value of 1, and this value of 1 will be written to pixel 74.

This process continues until all the other pixels 25 in the kernel 72 have been examined. Each time a new minimum is found, that value is used to update the value of the pixel 74. When this comparison process is completed for every pixel in the kernel 72, the final value of the pixel 74 will be established for use as one pixel in the background image. This process of comparing each pixel in the image 80 of Figure 6 to all the pixels in a kernel comprised of a plurality of pixels adjacent to the pixel of interest is repeated for every pixel in the 30 512 by 512 pixel array of the image 80. When it has been completed, the complete background image 35 has been generated.

The process symbolized by block 70 contemplates simultaneous processing for each pixel in the image 80 such that each pixel in the image is compared simultaneously with one other pixel in a kernel of pixels adjacent to the pixel of interest, and this process is repeated simultaneously for all pixels until all the pixels of interest have been compared to all the pixels and their respective kernels. This substantially increases the speed of processing to generate the background image. In some alternative embodiments, only a selected subset of the other pixels in each kernel will be sampled. In still other alternative embodiments, the process of comparing each pixel with the adjacent pixels in its kernel may be done serially such that each pixel of interest is compared simultaneously with all or some subset of all the pixels in the 40 corresponding kernel such that the entire kernel is searched in a single machine cycle or however many machine cycles are necessary to make the comparison between one pixel and another. After 45 50 55

this process is accomplished, another pixel of interest from the image to be analyzed is selected and simultaneous comparison is made of this pixel with all or some subset of the pixels in the kernel corresponding to that pixel.

Note that as the pixel of interest moves along a raster line, a corresponding kernel surrounding that pixel of interest is selected to keep the pixel of interest in the same relative location within the boundaries of the kernel.

Note also that the background image generation process must be performed using a copy of the image such that the updating of the values of each pixel of interest occurs in the copy. This is necessary because each pixel of interest is a neighboring pixel for the kernel corresponding to some other pixel of interest. Therefore, if the value of the pixel of interest in the image to be analyzed is updated prior to having processed all the other pixels in the image, there will be distortions and errors caused in the processing of other pixels whose kernels overlap the pixel which had its value changed.

After the background image is generated, it is subtracted on a pixel-by-pixel basis from the image to be analyzed, as symbolized by block 90 in Figure 4. That is, the value of pixel 1 in raster scan line 1 of the background image is subtracted from the value of pixel 1 in raster scan line 1 of the image to be analyzed.

After this process is completed, the resultant image is displayed as a background-removed image on the monitor 54 in Figure 3, as symbolized by block 92 in Figure 4.

Referring to Figure 7, there is shown symbolically the process by which whole image processing occurs in the computer apparatus according to the teachings of the invention. Simultaneous comparisons of each pixel in the image to be analyzed 80 to a single one of the adjacent pixels in the corresponding kernel is accomplished by the use of offset and compare commands to the image processing board set in the IBM ATTM. For example, assume that the image to be analyzed 80 is comprised of 9 pixels labeled A through I. Assume also that the heavy line 94 defines the boundaries of a kernel for a pixel of interest E. The phrase "pixel of interest" as the phrase is used herein means the pixel being processed which has its value compared to the other pixel values in the kernel or neighborhood and which has its value replaced if the test of the comparison is satisfied, i.e., in the case of generation of the background image, if the neighboring pixel selected from the other pixels in the kernel has a value which is less than the value of the pixel of interest.

To further the illustration, assume also that the heavy line 96 defines the boundaries for a kernel

for the pixel I. Similarly, a kernel comprised of the pixels D, E, G and H can be defined for the pixel H, and a kernel comprised of the pixels B, C, E and F can be defined for the pixel F.

Now assume that the first comparison in the process of generating the background image is to compare the values of the pixels of interest in all these kernels, i.e., the pixels at the lower right-hand corner of each kernel, to the values of the pixels at the upper left-hand corner of each kernel. Thus, in the case of kernel 94, the value of pixel E, the pixel of interest, is compared to the value of the pixel A. If the value of A is less than the value of E, then the value of A will be substituted for the value of E in a copy of the image 80. This copy is shown to the right and is labeled the "offset" image. Simultaneously, the value of pixel I is compared to the value of the pixel E. If the value of E is less than the value of I, then the value of I will be overwritten with the value of E in the offset image.

The offset image 98 is originally a copy of the image to be analyzed 80. To facilitate simultaneous comparison of some or all of the pixels in image 80 to one of the pixels in their corresponding kernels, the offset image 98 is used as follows. Imagine the offset image 98 is a transparency which can be placed over the image 80 and shifted about so as to align any pixel with any other pixel. For the first comparison in the hypothetical example, the pixel E will be compared with the pixel A. To implement this, the memory map of digital data representing the "transparency", i.e., the offset image 98, is electronically placed over the memory map of digital data representing the original or "acquired" image 80 such that the offset image pixel A' lies on top of the pixel E and the offset image pixel B' lies on top of the pixel F in image 80. This aligns the offset image with the image 80 such that each pixel in the image 80 which has a pixel in the offset image 98 overlying it will be aligned with the pixel to which it is to be compared for the first round of comparisons. That is, the pixel E will be aligned with the pixel A' and the pixel F will be aligned with the pixel B'. Likewise, the pixel H will be aligned with the pixel D' and the pixel I will be aligned with the pixel E'. Examination of the kernels of image 80 indicates that for each of the overlapped pixels in image 80, i.e., the pixels of interest, the overlying pixel will be the pixel in the upper left-hand corner of the kernel in image 80 which corresponds to each pixel in image 80 which is overlapped. The offset for this first round of comparisons, then is "1 pixel up, 1 pixel left".

The value of each pixel in image 80 which is overlapped is then compared to the value of the pixel which overlaps it in image 98. If any of the pixel values in image 98 are less than the pixel values in pixel 80 which they overlie, the minimum

value is used to update the pixel in the offset image corresponding to the pixel in the image 80. The pixels in the offset image 98 which correspond to the pixels in the image 80 are those with the same "relative address". To aid in understanding the meaning of the phrase "relative address" one can think of the labels A, B, etc. for the pixels in image 80 as their relative addresses or labels in memory. Thus, if the value of the pixel A' is less than the value of the pixel E, then the value of the pixel A' is written into the memory location storing the value of the pixel E'. The same process occurs for all other overlapped pixels.

Pixels in image 80 which are not overlapped, such as the pixels A, B, C, D and G, are compared to "dummy" pixels (constants or locations in the memory map which are loaded with constants) in the offset image 98 which have had their values artificially set to the maximum intensity level. This has the effect of causing the non-overlapped pixels in image 80 to never have their corresponding pixels in image 98 replaced with a minimum. The dummy pixels are labeled with Xs in image 98.

Thus, after one round of comparisons, each pixel in the image 80 will have been compared to one of the pixels in the corresponding kernel or a dummy pixel. To complete the process of generating the background image, a new offset or shift is performed to align the offset image with the image 80 such that the next pixel to be examined in each kernel overlies the pixel of interest in each kernel. Thus, for example, if the pixel E is to be compared next with the pixel D, then the offset image 98 is shifted such that the pixel D' overlaps the pixel E, and the pixel E' overlaps the pixel F. Then a new round of comparisons is made simultaneously to compare all overlapped pixels with the values of their overlapping pixels with appropriate updating where new minimums are found.

This offset/compare/update process occurs as many times as there are pixels in each kernel to be compared with the pixel of interest in each kernel. It is not necessary that all neighboring pixels in every kernel be compared with the pixel of interest to generate the background image. In fact, in some embodiments, only a sampling of the other pixels in each kernel is used to generate the background image.

The above-described process is graphically illustrated in the flow chart of Figure 8. The process illustrated in Figure 8 corresponds to the process symbolized by block 70 in Figure 4. No further discussion of Figure 8 is deemed necessary since it is self explanatory in light of the discussion above. Of course, those skilled in the art will appreciate that the background removal process can also be performed on a reverse video image by finding the maximum pixel value in each neighborhood

and substituting that value for the value of the pixel of interest corresponding to that neighborhood. This technique is deemed sufficiently self-explanatory as to not warrant further discussion.

Referring to Figure 9, there is shown a flow chart for the preferred embodiment of the process symbolized by block 68 in Figure 4. Basically, the process represented by the flow chart of Figure 9 represents an embodiment where the computer prompts the user to indicate what type of data is being analyzed and then selects the appropriate kernel shape based upon the user response. The user is then prompted to select an appropriate size for the kernel given the shape selected by the computer.

Referring to Figure 10, there is shown an alternative embodiment of the process symbolized by block 68 in Figure 4. The difference between the embodiment shown in Figure 9 and Figure 10 is that in the embodiment of Figure 9, the computer selects the kernel shape based upon the user-supplied data regarding the type of application data that is to be analyzed. In Figure 9, the user then selects the kernel size. In the embodiment of Figure 10, once the user supplies data regarding what type of application the machine is to be used on, the user is then prompted to select the kernel shape as well as to select the kernel size. In yet another alternative embodiment, the computer may select both the shape and the size based on the application data supplied by the user.

Figure 11 shows an example of two different kernel shapes for use on band type data such as is found in one-dimensional gel protein separations. The kernel shape indicated by the dashed line labeled 100 is not a good shape to use in this situation since it overlaps a portion of the dead space 102 which lies between band 104 and band 106. Since there is no valid background noise in the dead space 102, the kernel shape 100 will distort the background image, thereby creating errors. The kernel shape 108 is a better shape to use for this situation since it includes areas of the band 104 outside the data band of interest 110 but does not include any pixels in the dead space 102.

Figure 12 illustrates a situation where differing kernel shapes are useful. The more or less circular data spots in Figure 12 would be best quantized by the use of a circular kernel such as that shown in dashed lines at 112. However, certain types of data include vertical strips of noise in the image such as is shown at 114. In these situations, it is useful to do a two-stage background image generation process. The first stage of this process is to use a slender vertical kernel which is thinner than the thinnest noise streaks in the image. Such a kernel is shown at 116 in dashed lines. This kernel shape can effectively remove noise strips such as shown

at 114. After a background image is generated using the kernel shape of 116, the second stage of the background image generation process is entered where the kernel shape changes to that shown at 112. Background image generation then proceeds operating upon the image generated using the kernel 112 on the acquired image.

Referring to Figure 13, there is shown a flowchart for the preferred embodiment of a process according to the teachings of the invention. The first three stages in the process are symbolized by blocks 66, 68 and 70. These three stages are identical with the first three stages in the process symbolized by the block diagram of Figure 4. Likewise, the last two stages, symbolized by blocks 90 and 92 are identical to the process stages symbolized by blocks 90 and 92 in Figure 4. The difference between the process symbolized by Figure 4 and the process symbolized by Figure 13 lies in processed stages symbolized by blocks 120 and 122.

The process represented by block 120 is a series of steps to remove high frequency, large amplitude noise from the background image generated by the process represented by block 70. Such high frequency, large amplitude noise typically results from pinholes in the film, the penetration of gamma rays through the film or other such phenomena which cause large spikes in the intensity values of pixels. The details of this process will be given with reference to Figure 14.

Referring to Figure 14, there is shown a flowchart symbolizing the process steps implemented by block 120 in Figure 13. The process represented by Figure 14 essentially generates a maximum image from the background image generated by block 70 in Figure 13. This is done using a smaller kernel than was used to generate the background image and by searching throughout the kernel to find the maximum pixel value and using that value to update the value of the pixel of interest within that kernel. This process is repeated for all or some subset of all of the pixels in the image to generate a maximum image.

The first step in generating a maximum image is symbolized by block 124 representing the process of making a copy of the background image generated in the process represented by block 70 in Figure 13.

Next, a kernel is selected as symbolized by block 126. This kernel should be smaller than the kernel used to generate the background image and, generally, is very small in that it has an area which corresponds to the area of pinhole type defects.

Next, in block 128 the copy image is offset to align any selected pixel in each kernel with the corresponding pixel of interest in the background

image. This process is identical to the process described with reference to FIGS. 6, 7 and 8 except that a much smaller kernel is used.

Block 130 represents the process of comparing each pair of aligned pixels to determine which one has the maximum value. This process is also identical to the process used in generating the background image, but the neighboring pixel in the kernel is checked to determine if its value is greater than the value of the pixel of interest rather than less than as in the case of generating the background image.

Block 132 represents the process of updating the pixel in the copy image corresponding to the pixel of interest in the background image for each aligned pixel pair where the aligned pixel in the copy image has a value which is greater than the aligned pixel of interest in the background image. This process also corresponds to the background image generation process described with reference to FIGS. 6, 7 and 8 and need not be further described here.

Next, in block 134, the copy image is offset to a different location to align another pixel in each kernel with the pixel of interest in the corresponding kernel in the background image.

Then the test of block 136 is performed to determine if all the other pixels in the kernel selected for generation of the maximum image from the background image have been checked against the pixel of interest in each kernel. If all the neighboring pixels each kernel have been checked, the test of block 136 causes branching to block 138 where exit to the next step in the process is performed based upon completion of the maximum image. The next step in the process would be block 122 in Figure 13 in the preferred embodiment. However, in alternative embodiments, the next step in the process would be block 90 in Figure 13 or some other image processing step. If the test of block 136 indicates that not all the pixels in the kernel have been checked for a value which exceeds the value of the pixel of interest, then a branch to block 130 is performed where each pair of aligned pixels in all the kernels are checked as previously described. Steps 130, 132, 134 and 136 are performed as many times as there are neighboring pixels to the pixel of interest in each kernel. These steps 130, 132 and 134 along with step 136 result in the simultaneous processing of the entire image.

Referring to Figure 15, there is shown a flowchart of the process represented by block 122 in Figure 13. This process smooths the background image by averaging all of the pixels in a kernel thereby removing high frequency, low amplitude noise. The process of Figure 15 can be carried out using the background image generated by the pro-

cess of block 70 as the starting image in some embodiments or upon the image generated by the process represented by block 120 in Figure 13 as the starting image. That is, alternative embodiments to the process symbolized by the flowchart at Figure 13 are to perform either the process represented by block 120 alone or the process represented by block 122 alone or both between the processes represented by blocks 70 and 90. Accordingly, the first stage in the process represented by Figure 15 is symbolized by block 140 and making a copy of the starting image where the starting image may be the image generated by the process represented by block 70 in Figure 13 or the image generated by the process represented by block 120.

Next, in block 142 a kernel is selected. In some embodiments, the computer may automatically select this kernel, and in other embodiments, the user may select a kernel. In either embodiment, the size and/or shape may be variable. The size of the kernel is generally substantially smaller than the kernel used to generate the background image as selected in block 68 of Figure 13.

Block 144 represents the process of offsetting the copy image from the starting image to align one of the pixels in each kernel having the shape and size selected in block 142 with the corresponding pixel of interest in each kernel. This process is similar to the process represented by block 128 in Figure 14 and the process discussed with reference to FIGS. 5-8.

Next, in block 146 the pair of aligned pixels are summed with the sum being used to update the pixels in the copy image which are aligned with pixels in the starting image. In some embodiments, pixels which have no overlying pixel in the copy image are summed with a constant.

In block 148 a process is carried out to offset the summed image generated by the process of block 146 to align another pixel from each kernel with the corresponding pixel of interest in each kernel.

The test of block 150 is to determine if all other pixels in each kernel have been aligned with and summed with the pixel of interest in each kernel with the total being used to update the value of the pixel and the summed image which corresponds to the pixel of interest in each kernel. In other words, steps 144, 146 and 148 are performed a number of times equal to the number of pixels in a kernel less one. This means that every other pixel in the kernel is aligned with the pixel of interest and summed therewith. If the test of block 150 determines that not all pixels in each kernel have been summed with the pixel of interest, branching back to the process represented by block 146 occurs. If all other pixels in a kernel have been summed, the

process of block 152 is performed. In this process, each pixel in the summed image has its value divided by the number of pixels in each kernel. This generates a value for each pixel in the summed image which is the average value for all pixels and the kernel. This average value is then used to update the value of the pixel in the summed image.

The resultant image is used by block 90 in

10 Figure 13 as the background image which is subtracted from the acquired image to leave a background removed image which is displayed by the process of block 92 in Figure 13.

Block 154 represents the process of repeating 15 the smoothing or averaging process if desired or necessary. If not desired or not necessary, exit to block 90 in Figure 13 is performed.

Referring to Figure 16, there is shown a flow chart for a process of generating a percent change 20 image useful in comparing two data images. Preferably, this process is carried out on a background removed image, but it may also be carried out between any two images. The process starts as symbolized in block 170 by subtracting the value of 25 a pixel in image 1 from the value of a corresponding pixel in image 2. Typically, this process would be carried by subtracting pixel 1 of line 1 of image 1 from pixel 1 of line 1 of image 2 and storing the difference. However, the order in which the pixel 30 are process is immaterial as long as corresponding pixels, i.e., pixels having the same relative location in the image are subtracted. An additional feature in some embodiments including the preferred embodiment is to clip the noise from the percent 35 change image by implementing a rule limiting the allowable differences. The rule is, if the sum of the values of the two pixels being compared is less than a noise clipping constant (fixed for any application but modifiable by the user), then the difference is set to 0. This rule has the effect of 40 eliminating salt and pepper noise from the percent change image which can result when the differences between the images at substantially all the pixels is small.

45 Next, in step 172, the difference value is multiplied by a constant. This constant may, in some embodiments be fixed for all comparisons, but, in the preferred embodiment, the constant is selected by the computer based upon the application, but the user can override the selection and supply a new constant.

Step 174 represents the process of dividing the 50 difference between the two pixel values by the minimum of the pixel values compared. This step generates a percentage change number indicating how much the intensity or value of the one of the pixels varies from the value of the other pixel. These percentage numbers vary from 255% to 1%

because the maximum pixel intensity value is 255 and the minimum pixel intensity value is 1.

The significance of the constant is that it controls what percentages changes can be seen in the final percent change image and the intensities at which the percent change pixels are displayed. That is, the constant controls the range of percentage differences which can be seen by stepping up the percentage change numbers to larger numbers. However, the maximum intensity value which can be displayed is 255. Therefore, selection of larger constants can lead to clipping since the resulting percentage change numbers after multiplication can exceed 255. In the preferred embodiment, the constant ranges from +1 to +256, but in other embodiments, any number between 0 and any positive number could be used including fractional numbers.

In step 176, the result from step 174 is added to another constant to set the 0% change number equal to some reference intensity value. In the preferred embodiment, intensity values range from 1 to 255, and the constant used in step 176 is 127 such that the 0% change falls in the middle of the gray scale.

In step 178, the results from step 176 are clipped between 0 and 255 for purposes of using the results on a video display. The result is stored in a percent change image file or framestore.

Step 180 represents the process of repeating steps 170 through 178 for all pixels in both images to complete generation of the percent change image. The image may then be displayed for inspection and analysis.

Referring to Figures 17(a) through 17(b), there are shown a plurality of images which together comprise the components of a quad display and the quad display itself. The purpose of a quad display is to facilitate visual comparisons and analysis of data bearing images. The components of a quad display are the two compared images used to generate the percent change image, the percent change image itself, and a fourth image which is called the difference image. This difference image is at each pixel the difference between the two corresponding pixels in images 1 and 2, divided by 2 and added to 127. The percent change image is the image generated by the process of Figure 16. The term "corresponding pixels" for the description of the difference image means the same thing as that term as used for the percent change image.

If the display hardware is large enough to display four complete images of the size of image 1, then all four images are simultaneously displayed as arranged in Figure 17(e). If however, the display apparatus can display only one image having the number of pixels in image 1, then several alternative embodiments are possible. First, each image

may be sampled to develop of subset of pixel for that image. Such sampling can include selecting every other pixel on every other line such that one-fourth of the total number of pixels remain to be displayed. In another alternative embodiment, a selection of one-quarter of each image is made, and that quarter of an image is displayed in the corresponding portion of the quad display of Figure 17(e). The quarter of each image selected can be selected by the user or by the computer based upon the application or can be set to a default selection by the computer and modifiable by the user. The possibilities for which one-quarter to select are numerous and include one quadrant of each image, a horizontal strip amounting to one-fourth of the pixels or a vertical strip amounting to one-fourth of the pixels.

In the preferred embodiment, selects which quarter of each image to be displayed by manipulation of a "linked" cursor in a scout image. The scout image is, in the referred embodiment, a 2 to 1 minification or subset of image 2. This minification is performed by selecting every other pixel of every other line and displaying the result as the scout image in the lower left quadrant of the display. The locked cursor is a fixed cursor encompassing one-fourth of the total area of the scout image. The user manipulates the position of this cursor by manipulation of a mouse, track ball or light pen etc. Also, the position of the cursor can be positioned by default in one of the four quadrants of the scout image and this position can then be modified by the user. As the user moves the cursor in the scout image, a corresponding cursor in each of the other four images moves synchronously to encompass the pixels corresponding to the pixels encompassed by the cursor in the scout image. When the user, selects a position for the cursor in the scout image as the final position, the corresponding pixels in the other three images are selected and displayed in the corresponding quadrants of the quad display shown in Figure 17(e). Simultaneously, all the pixels in the difference image corresponding to the selected pixels in images 1, 2 and the percent change image are selected and displayed in the lower left quadrant of the quad display.

In other embodiments, the quad display may be arranged differently. An example of such an alternative arrangement is as shown in Figure 18. Any combination of hardware and software to implement this process and cursor manipulation will suffice for purposes of practicing the invention. The preferred embodiment of computer code which when combined with the hardware illustrated in Figure 3 will implement the teachings of the invention is given in Appendix A.

Referring again to Figure 17(e) there is shown

the positions for four measurement cursor locations covering four sets of corresponding pixels. These cursor locations are shown at 182, 184, 186 and 188 in exemplary rectangular shape. The shape and size of the cursors can be selected by default by the computer and be modifiable by the user or can be selected outright by the user.

After the position, shape and size of the cursor is established, the computer calculates some quantity related to the values of the pixels inside the cursor. Examples of what these quantities can be are: 1) absorption meaning the sum of all the pixel values within the cursor in preselected units, which can be optical density, counts per minute, etc. for images 1 and 2 only; 2) the average value of all pixels in each cursor location for images 1 and 2; 3) square millimeters of optical density meaning absorption in optical density units divided by the number of pixels per square millimeter. Once these values are calculated for images 1 and 2, the values for the corresponding sets of pixels in the cursor locations in the percent change and difference images are automatically determined. That is, for the percent change image, the value returned for the cursor location is calculated according to the algorithm specified in Figure 16 as modified by omission of multiplication by the constant and addition of the second constant. That is, the number returned for the cursor location in the percent change image is the value determined for the cursor in image 1 minus the value for the cursor in image 2 divided by the minimum value between these two numbers.

Likewise, the value returned for the cursor in the difference image is the value of the difference between the values returned for the cursor locations in images 1 and 2 divided by 2.

Figure 19 clarifies how the cursor manipulated by the user in the 2 to 1 minified scout image (subset of image 2) corresponds to one-quarter of the pixels in the full size image 2 at the same relative location in the image.

Referring to Figure 20, there is shown a diagram illustrating the process of alignment of images 1 and 2 which is necessary for the computation of values for the pixels in the cursors in the quad display. Figure 20(a) represents the camera input video data that defines image 2. Figure 20(b) illustrates an already acquired image 1 stored in a frame buffer. The corresponding pixels from these two images are combined according to the algorithm specified in Figure 20(d) to generate the image of Figure 20(c) on the display. The user then manipulates image 2 under the camera until the displayed image calculated per the equation of Figure 20(d) shows minimal difference between image 1 and image 2. When this condition exists, the user so indicates, and the pixels of the image

of Figure 20(a) are captured in a frame buffer as the final image 2 for use in the processing described above to return the values for the selected cursor locations in the quad display shown in Figure 17.

Although the invention has been described in terms of the preferred and alternative embodiments disclosed herein, those skilled in the art will appreciate numerous modifications which can be made without departing from the spirit and scope of the invention. All such modifications are intended to be included within the scope of the claims appended hereto.

## Claims

1. An apparatus for removing background noise from an image, comprising:  
20 means for digitizing an image into a plurality of pixels defining a first image, each pixel having a value, and for making and storing a copy of said first image as a copy image;  
means for generating a background image from said copy image by simultaneous processing on each said pixel, said simultaneous processing comprising, for each selected pixel in said copy image, comparing the value of said selected pixel with the value of another pixel in a group of pixels adjacent to said selected pixels and replacing the value at said selected pixel with the value of said other pixel if said other pixel's value is less than the value of said selected pixel, and repeating said comparison and replacement process for at least selected ones of said other pixels in said group; and  
means for subtracting said background image from said first image to generate a background-removed image.
2. The apparatus of claim 1 further comprising  
40 means for displaying said background-removed image.
3. The apparatus of claim 1 wherein said means for generating includes means for selecting said other pixels in said group so that said other pixels define a predetermined shape.
4. The apparatus of claim 3 wherein said means for selecting includes means for selecting said other pixels so as to define a group with a predetermined shape.
- 50 5. The apparatus of claim 1 wherein said means for digitizing creates a digital image that displays data in spatial patterns having predetermined size and shape characteristics, and wherein said means for generating includes means for selecting said other pixels in said group includes means to select said other pixels so as to define a group having predetermined size and shape characteristics relative to said size and shape char-

acteristics of said data.

6. The apparatus of claim 5 wherein said means for selecting selects said other pixels so as to define said group with a shape which substantially matches the shape of a selected data shape.

7. The apparatus of claim 6 wherein said means for selecting includes means for selecting a variable size for said group such that said group size can be substantially matched to the size of a selected area of data.

8. An apparatus for removing background noise from a digital image which displays data spatially as a plurality of pixels in a raster display, each pixel having a value, comprising:

means for digitizing an image containing said data and background noise to generate a first image; means for removing said background noise by repeated simultaneous processing of selected groups of pixel pairs between a copy of said first image hereafter called a copy image and said first image to generate a background image from said copy image; and means for subtracting said background image from said first image.

9. The apparatus of claim 1 wherein said selected group of pixels includes a kernel of pixels in said copy image which define a shape and size in said copy image which have predetermined relationships to the shape and size of selected data in said first image.

10. The apparatus of claim 8 wherein said means for removing includes means to select said pixels in said kernel to define a predetermined shape relative to the shape of data to be analyzed in said first image and further comprising means to select a variable sized group of said pixels in said kernel so as to maintain said predetermined shape but sized according to an input signal.

11. The apparatus of claim 8 wherein said means for removing includes means to select said pixels in said kernel so as to have a shape which matches the typical shape of data to be analyzed in said first image and so as to have a size which is larger than the largest sized group of data pixels to be analyzed.

12. The apparatus of claim 9 further comprising means to remove high-frequency, large-amplitude noise from said background image to generate a smoothed image.

13. The apparatus of claim 12 further comprising means for removing high-frequency, low-amplitude noise from said smoothed image to generate a filtered background image.

14. The apparatus of claim 8 further comprising means for removing high-frequency, low-amplitude noise from said background image from said first image.

15. The apparatus of claim 8 further comprising

means for removing high-frequency, large amplitude noise from said background image before subtracting said background image from said first image.

5 16. An automated noise removal system in a system to graphically display data spatially as areas of varying intensity on a video display to preserve the intensity of data-bearing data displayed in spatial features of greater than a predetermined size while removing background noise also displayed graphically and spatially on a video display comprising:  
10 a uniform illumination light box on which a transparent or translucent medium is placed, said medium having spatially depicted thereon the data to be analyzed;  
15 a video camera positioned adjacent said light box so that there is an optical pathway therebetween, said camera providing a video output comprising an analog video signal depicting said data on said medium in terms of the spatial patterns of light intensity of light from said light box which passes through said medium with said light intensity being modulated by the spatial patterns of data and background noise depicted on said medium;  
20 converter means coupled to receive said analog video signal for converting said analog video signal to a stream of digital data and for storing said digital data in a memory to define a digital first image comprised of a plurality of pixels arranged in rows and columns spatially displaying said data along with background noise;  
25 background removal means coupled to said converter means for simultaneously comparing the intensity value at each pixel in said first image with a corresponding, predetermined intensity value of a pixel in an offset image, where said offset image is a copy of said first image but offset from said first image by a predetermined number of rows and columns, and at each pixel location in said offset image establishing the intensity value as the intensity value which is smallest as between the pair of compared pixel intensity values which correspond to said pixel location in said offset image and for  
30 repeating the offsetting and comparison and writing of intensity values for the offset image for each of a plurality of different offset values defining a neighborhood shape for a predetermined group of pixels in said first image thereby establishing said offset image as a background image where each selected pixel's intensity value corresponds to the minimum intensity value for all pixels in a group of pixels in said first image which are adjacent to the pixel which corresponds to said selected pixel when  
35 there is a zero row-and-column offset, said group of pixels defining a shape having the shape of said neighborhood;  
40 means for subtracting said background image from  
45 said first image;

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means for subtracting said background image from

said first image on a pixel-by-pixel basis to generate a background-removed image; and means for converting said background-removed image to a video signal and for displaying said video signal on a video display.

17. An operator-interactive automated noise background removal system to preserve the amplitude of data-bearing spatial features greater than a prescribed size while removing background and high-frequency noise from an image of biological data acquired from an autoradiograph, electrophoresis gel, fluorescence gel, photographic film or other media, said system comprising:  
 a means for displaying an image containing data shown by spatial patterns of varying intensity;  
 image conversion means for generating video output data from said image and positioned adjacent said means for displaying said image so that there is an optical pathway therebetween, said image conversion means for converting said image to video output data at a video output;  
 background detector means connected via an analog-to-digital converter pathway for receiving video output data and converting said video data to digital data, said background detector means processing said digital data so as to detect valid background values within the image of data;  
 computer means connected to said background detector means and having an interactive mode for the operator to specify upper size bounds of valid spatial features, said background detector determining the background neighborhood used in surrounding spatial features of the data;  
 monitor means connected to said background detector means and responsive to said video output for displaying a television image of said background-removed data;

18. The system of claim 17, wherein said background detector system means comprises means for converting said optical image data to digital image data and for causing said optical image data to be, upon receipt of a reverse command, converted to reverse video digital data after said conversion to digital image data.

19. The system of claim 18, wherein said means for converting comprises an analog to digital converter.

20. The system of claim 17, wherein said background detector means comprises first, second and third discriminators for detecting when said received digital data is valid signal comprising spatial features in the biological data.

21. The system of claim 20, wherein said first discriminator means comprises means for generating a background image which is subtracted from said image of biological data.

22. The system of claim 21, wherein said background image comprises digital image data which

consists of a rectangular array of pixels each of whose intensity is the minimum within a neighborhood of each pixel in said biological image data.

5 23. The system of claim 22, wherein said array of pixels comprises digital data having digital intensity values which are shades of gray when displayed on said monitor means.

10 24. The system of claim 20, wherein said second discriminator means comprises means for determination of a neighborhood size for use in discriminating out noise which enables measurement of the amplitude of features and objects in said image of biological data where the base plateau beneath the features and objects is nonuniform.

15 25. The system of claim 22, wherein said third discriminator means comprises means for smoothing of said background image by removing or damping high-frequency, low-amplitude noise in said background image of biological data.

20 26. The system of claim 22, wherein said fourth discriminator means comprises means for clipping of said background image so as to clip noise which is high frequency as compared with the frequency of the signal for said data-bearing spatial features which is also high amplitude relative to the amplitude of the signal in said image of biological data where data-bearing spatial features are not present.

25 27. The system of claim 17, wherein said background detector includes means for subtraction of said background image from said image of biological data which preserves data-bearing spatial features and enables measurement of the amplitude of the signal comprising data-bearing spatial features within said image of biological data.

30 28. The system of claim 24, wherein said second discriminator means further comprises means for selecting neighborhood size through user interaction to separate data-bearing spatial features in said images of biological data so as to pick a neighborhood size and shape suited to enable measurement of quantity of biological materials represented by multiple data-bearing spatial features in close proximity.

35 29. The system of claim 17, wherein said computer means is connected to said image conversion means for receiving video output data therefrom, said computer means comprising a video interface for converting said video output data to digital signals and storing the digital signals.

40 30. The system of claim 17, wherein said computer means comprises an interface circuit and a computer connected thereto, said interface circuit converting digital signals received from said computer to analog signals and sending said analog signals to said monitor means, in response to which said monitor means displays said background-removed images of valid spatial fea-

tures.

31. An apparatus for removal of noise from a digital image displaying data spatially as a plurality of pixels on a raster-scanned video display comprising:

a background removal circuit for making a copy of said digital image and comparing a selected pixel in said digital image to a neighborhood of adjacent pixels using said copy and finding the minimum pixel value in said neighborhood and setting a pixel in said copy corresponding to said selected pixel to said minimum pixel value and for doing this process simultaneously for a predetermined number of pixels in said digital image to convert said copy to a background image;

a subtracter for subtracting said background image from said digital image to remove noise from said digital image.

32. The apparatus of claim 31 further comprising a circuit for receiving data regarding the size and shape of said neighborhood best suited for optimal noise removal and for causing said background removal circuit to use such a neighborhood in noise removal.

33. The apparatus of claim 32 further comprising a high-frequency filter in said background removal circuit for removing high-frequency noise from said background image before subtracting said background image from said digital image.

34. A method of removing noise from a data-bearing image spatially displaying data, comprising the steps of:

simultaneously comparing each pixel in said image to a neighborhood of adjacent pixels and setting said each pixel to the minimum value found in said neighborhood to generate a background image;

subtracting said background image from said data-bearing image.

35. The method of claim 34 further comprising the step of selecting the size and shape of said neighborhood for optimum removal of noise from said data-bearing image given the size and shape of said spatial displays of data.

36. The method of claim 35 further comprising the step of removing or damping high-frequency noise in said background image before subtracting said background image from said data-bearing image.

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000010 00 00 00 4D 53 20 43 6E-88 09 00 00 9F 4C 4C 49 ...MS Cn....LLI  
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000070 52 5F 44 41 54 41 0D 41-43 51 39 36 47 4F 35 5F R\_DATA.ACQ96GO5\_  
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000110 5F 67 65 74 5F 70 72 6F-62 65 31 5F 6E 61 6D 65 ..get\_probe1\_name  
000120 00 DF 84 15 00 12 64 65-66 e9 8E 65 5F 65 8C 8C .....define\_e11  
000130 e9 70 73 65 5F 39 36 77-00 28 8C BC 00 04 5F 6F base\_96w. ....\_o  
000140 6E 65 00 08 5F 73 70 72-69 6E 74 ee 00 10 5F 67 ne..\_sprintf..\_9  
000150 65 74 5F 70 72 6F 62 65-32 5F 6E 61 6D 65 00 04 et\_probe2\_name..  
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000170 5F 67 65 74 5F 70 72 6F-62 65 33 5F 6E 61 6D 65 ..get\_probe3\_name  
000180 00 10 5F 67 65 74 5F 70-72 6F 62 65 34 5F 6E 61 ..get\_probe4\_na  
000190 6D 65 00 0B 5F 62 6C 69-6E 5B 5F e9 74 65 6D 00 me..\_blink\_item.  
0001A0 0F 5F 64 72 61 77 5F 6D-65 6E 75 5F 69 74 65 6D ..\_draw\_menu\_item  
0001B0 00 0A 5F 6D 65 6E 75 5F-64 6F 77 6E 00 10 5F 67 ..\_menu\_down...\_9  
0001C0 65 74 5F 73 74 61 6E 64-61 72 64 5F 67 72 69 64 et\_standard\_grid  
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000270 75 74 5F 73 74 61 6E 64-61 72 64 5F 67 72 69 64 ut\_standard\_grid  
000280 5F 73 74 72 75 63 74 75-72 65 00 0C 5F 69 6D 5F \_structure..\_im\_  
000290 67 72 61 70 68 77 69 6E-00 0A 5F 6D 6C 5F 77 69 graphwin..\_ll\_wi  
0002A0 6E 5F 66 62 00 0D 5F 6D-65 73 73 61 67 65 5F 61 n\_fb..\_message\_a  
0002B0 72 65 61 00 13 5F 67 65-74 5F 65 78 70 65 72 69 rea..\_get\_experi  
0002C0 6D 65 6E 74 5F 6B 65 79-00 EE B4 0F 00 0C 64 72 ment\_key.....dr  
0002D0 61 77 5F 65 6C 69 70-73 65 00 36 BC 46 00 08 aw\_ellipse.6.F..

MODULE I

(C) 1989 BIOVISION

APPENDIX A

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0002E0	5F 6C 6C 5F 6D 6F 64 65-00 0A 5F 69 6D 5F 6F 70	_11_mode.._im_op
0002F0	6D 6F 64 65 00 12 5F 63-6C 65 61 72 5F 61 63 74	mode.._clear_act
000300	69 6F 6E 5F 61 72 65 61-00 07 5F 6C 6C 5F 62 75	ion_area.._11_bu
000310	73 00 10 5F 63 6C 65 61-72 5F 6D 65 6E 75 5F 61	s.._clear_menu_a
000320	72 65 61 00 13 B4 17 00-14 62 75 69 6C 64 5F 69	rea.....build_i
000330	6D 61 67 65 5F 66 69 6C-65 6E 61 6D 65 00 0F 8C	mage_filename...
000340	A6 00 13 5F 63 6C 65 61-72 5F 6D 65 73 73 61 67	..._clear_message_a
000350	65 5F 61 72 65 61 00 0C-5F 69 6D 5F 66 72 6F 6D	_area.._im_from
000360	64 69 73 6B 00 14 5F 77-72 69 74 65 5F 61 6C 6C	disk.._write_all
000370	5F 73 74 61 6E 64 61 72-64 73 00 08 5F 66 6C 69	_standards.._fli
000380	63 6B 65 72 00 0D 5F 69-6D 5F 64 69 73 66 6F 72	cker.._im_disfor
000390	6D 61 74 00 0C 5F 6C 6C-5F 74 6B 5F 66 69 65 6C	mat.._11_tk_fiel
0003A0	64 00 0B 5F 69 6D 5F 6F-75 74 70 61 74 68 00 07	d.._im_outpath..
0003B0	5F 6D 6F 75 73 65 72 00-0B 5F 69 6D 5F 73 79 6E	_mouser.._im_svn
0003C0	63 00 09 5F 69 6D 5F 76-69 64 65 6F 00 0e 5F 6F	c.._im_video.._o
0003D0	76 6C 75 74 00 07 5F 64-65 6E 39 36 77 00 07 5F	vlut.._dem96w.._
0003E0	65 72 72 6D 73 67 00 62-B0 16 00 10 5F 61 63 71	errmsg.b...._acd
0003F0	39 36 67 6F 5F 65 6C 6C-69 70 73 65 00 61 0C 01	96go_ellipse.a..
000400	96 8C DC 00 12 5F 67 65-74 5F 70 67 63 5F 64 69	...._get_pic_di
000410	72 65 63 74 6F 72 79 00-05 5F 65 78 69 74 00 0F	rectory.._exit..
000420	5F 73 65 74 5F 6D 65 6E-75 5F 74 69 74 6C 65 00	_set_menu_title..
000430	06 5F 6B 5F 65 78 70 00-13 5F 67 65 74 5F 63 61	._k_exp.._get_ca
000440	6D 57 6E 69 74 5F 76 61-6C 75 65 73 00 0C 5F 69	minit_values.._i
000450	6D 5F 73 65 74 63 6F 6D-6F 72 00 15 5F 63 6C 6F	m_setcolor.._clo
000460	73 65 5F 73 74 61 6E 64-61 72 64 73 5F 66 69 6C	se_standards_fil
000470	65 00 0C 5F 69 6D 5F 64-72 61 77 6D 6F 64 65 00	e.._im_drawmode..
000480	07 5F 76 5F 70 6C 73 74-00 08 5F 69 6D 5F 6D 6F	._v_plst.._im_mo
000490	76 65 00 13 5F 70 75 74-5F 63 61 6D 69 6E 69 74	ve.._put_caminit
0004A0	5F 76 61 6C 75 65 73 00-0E 5F 67 65 74 5F 73 74	_values.._get_st
0004B0	61 6E 64 61 72 64 73 00-0B 5F 69 6D 5F 65 6C 6D	andards.._im_ell
0004C0	69 70 73 65 00 0D 5F 73-65 74 5F 6D 65 73 73 61	ipse.._set_messa
0004D0	67 65 00 0A 5F 69 6D 5F-6F 66 66 73 65 74 00 D4	ge.._im_offset..
0004E0	B0 13 00 0D 5F 61 63 71-39 36 67 6F 5F 67 72 69	...._acq96go_gri
0004F0	64 00 61 0C 01 E4 BC 0E-01 08 5F 69 6D 5F 67 61	d.a....._im_ga
000500	69 6E 00 0D 5F 53 65 74-43 75 72 73 6F 72 50 6F	in.._SetCursorPo
000510	73 00 11 5F 73 65 74 5F-73 63 72 65 65 6E 5F 74	s.._set_screen_t
000520	69 74 6C 65 00 0B 5F 77-72 69 74 65 5F 67 72 69	itle.._write_gri
000530	64 00 0C 5F 69 6D 5F 73-6F 66 74 69 6E 69 74 00	d.._im_softinit..
000540	1B 5F 73 6B 6F 77 5F 73-74 61 6E 64 61 72 64 5F	._show_standard_
000550	6D 65 6E 75 5F 61 63 74-69 6F 6E 73 00 06 5F 62	menu_actions.._b
000560	64 72 5F 30 00 0F 5F 63-6C 6F 73 65 5F 64 61 74	dr_0.._close_dat
000570	61 62 61 73 65 00 05 5F-6D 6F 76 65 00 1C 5F 75	abase.._move.._u
000580	70 64 61 74 65 5F 6D 6F-75 73 65 5F 62 75 74 74	pdate_mouse_but
000590	6F 6E 5F 64 69 73 70 6C-61 79 00 1C 5F 77 61 69	on_display.._wai
0005A0	74 5F 66 6F 72 5F 6D 6F-75 73 65 5F 62 75 74 74	t_for_mouse_but
0005B0	6F 6E 5F 70 72 65 73 73-00 1E 5F 77 61 69 74 5F	on_press.._wait_

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0005C0 66 6F 72 5F 6D 6F 75 73-65 5F 62 75 74 74 6F 6E for\_mouse\_button  
 0005D0 5F 72 65 6C 65 61 73 65-00 08 5F 69 6D 5F 77 6C \_release...\_im\_wl  
 0005E0 75 74 00 08 5F 69 6D 5F-6D 61 73 6B 00 0B 5F 62 ut..\_im\_mask..\_b  
 0005F0 75 69 6C 64 5F 6B 65 79-73 00 0A 5F 69 6D 5F 63 uild\_keys..\_im\_c  
 000600 73 74 61 72 74 00 A4 B4-0C 00 09 64 72 61 77 5F start.....draw\_  
 000610 67 72 69 64 00 84 8C 3C-00 09 5F 69 6D 5F 63 67 grid...<..\_im\_cg  
 000620 72 61 62 00 0E 5F 6F 70-65 6E 5F 64 61 74 61 62 rab..\_open\_database  
 000630 61 73 65 00 09 5F 69 6D-5F 69 6E 6D 61 70 00 13 ase..\_im\_inmap..  
 000640 5F 61 63 71 75 69 72 65-5F 69 6E 74 65 67 72 61 \_acquire\_integra  
 000650 74 65 64 00 55 B4 1F 00-10 61 63 71 39 36 67 6F ted.U...aco96go  
 000660 5F 60 76 70 5F 69 6E 69-74 00 0A 61 6C 74 65 72 \_mvo\_init..alter  
 000670 5F 67 72 69 64 00 87 8C-0D 00 0A 5F 69 6D 5F 74 \_grid.....\_im\_t  
 000680 6F 54 69 73 6B 00 3B B4-21 00 0D 61 63 71 5F 66 odisk.:!..aco\_f  
 000690 69 72 73 74 5F 39 36 77-00 0F 61 64 6A 75 73 74 irst\_96w..adjust  
 0006A0 5F 67 72 69 64 5F 39 36-77 00 39 90 18 00 01 02 \_grid\_96w.F....  
 0006B0 11 5F 61 63 71 39 36 67-6F 5F 69 74 65 6D 6C 69 \_aco96go\_itemli  
 0006C0 73 74 62 01 00 3E B6 2E-00 00 01 11 61 63 71 5F stb..>....aco\_  
 0006D0 61 6E 64 5F 61 6C 69 67-6E 5F 35 36 77 7A 09 00 and\_align\_96w..  
 0006E0 12 64 65 66 69 6E 65 5F-65 6C 6C 69 70 73 65 5F .define\_ellipse\_  
 0006F0 39 36 77 8C 0E 00 3B 90-14 00 01 02 0D 5F 61 63 96w...8.....ac  
 000700 71 39 36 67 6F 5F 6D 65-6E 75 DA 01 00 84 90 0F o96go\_menu.....  
 000710 00 00 01 08 5F 61 63 71-39 36 67 6F 00 00 00 00 7F ....\_aco96go...  
 000720 B6 BB 00 00 01 09 78 5F-61 63 71 39 36 67 6F 32 .....x\_aco96go2  
 000730 00 00 0C 64 72 61 77 5F-65 6C 6C 69 70 73 65 46 ...draw\_ellipseF  
 000740 12 00 14 62 75 69 6C 64-5F 69 6D 61 67 65 5F 66 ...build\_image\_f  
 000750 69 6C 65 6E 61 6D 65 FA-08 00 09 64 72 61 77 5F ilename....draw\_  
 000760 67 72 69 64 16 15 00 10-61 63 71 39 36 67 6F 5F grid....aco96go\_  
 000770 6D 76 70 5F 69 6E 69 74-A4 12 00 0A 61 6C 74 65 mvp\_init....site  
 000780 72 5F 67 72 69 64 D4 14-00 0D 61 63 71 5F 66 69 r\_grid....aco\_fi  
 000790 72 73 74 5F 39 36 77 1C-07 00 0F 61 64 6A 75 73 rst\_96w....adjus  
 0007A0 74 5F 67 72 69 64 5F 39-36 77 8E 0C 00 01 88 04 t\_grid\_96w.....  
 0007B0 00 00 A2 01 D1 A0 44 01-02 00 00 61 63 71 69 6D .....D....acqim  
 0007C0 67 00 00 70 69 00 00 41-75 74 6F 6D 61 74 69 63 e..pi..Automatic  
 0007D0 20 61 63 71 75 69 73 69-74 69 6F 6E 20 73 65 71 acquisition seq  
 0007E0 75 65 6E 63 65 00 41 64-6A 75 73 74 20 67 72 69 uence.Adjust gri  
 0007F0 64 20 6C 6F 63 61 74 69-6F 6E 20 61 6E 64..20 73 d location and s  
 000800 69 7A 65 00 53 75 72 72-6F 75 6E 64 20 6C 61 72 ize.Surround lar  
 000810 67 65 73 74 20 63 6F 6C-6F 6E 79 20 69 6E 20 67 gest colony in g  
 000820 72 69 64 20 63 65 6C 6C-20 0A 28 49 6E 73 63 72 rid cell .(Inscr  
 000830 69 62 65 64 20 65 6C 6C-69 70 73 65 20 69 73 20 ibed ellipse is  
 000840 74 68 65 20 64 65 66 61-75 6C 74 29 00 41 6C 74 the default).Alt  
 000850 65 72 6E 61 74 65 20 42-65 74 77 65 66 6E 20 49 ternate Between I  
 000860 6D 61 67 65 73 20 56 69-65 77 65 64 00 41 63 71 mages Viewed.Acq  
 000870 75 69 73 69 74 69 6F 6E-20 63 6F 6D 70 6C 65 74 uisition complet  
 000880 65 2C 0A 53 65 6C 65 63-74 20 74 6F 20 63 6F 6E e..Select to con  
 000890 74 69 6E 75 65 20 61 6E-61 6C 79 73 69 73 00 41 tinue analysis.A

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000BA0	63	71	75	69	72	65	20	20-20	20	20	20	20	20	20	20	cquire
000B80	69	6D	61	67	65	00	41	63-71	75	69	72	65	20	20	20	image.Acquire
000BC0	20	20	20	20	20	20	20	69-6D	61	67	65	00	41	63	71	image.Acq
000BDO	75	69	72	65	20	20	20	20-20	20	20	20	20	20	69	6D	uire
000BE0	61	67	65	00	41	63	71	75-69	72	65	20	20	20	20	20	age.Acquire
000BF0	20	20	20	20	20	69	6D	61-67	65	00	8E	A0	B9	03	02	image.....
000900	38	02	42	69	6F	6C	6F	67-69	63	61	6C	20	56	69	73	8.Biological Vis
000910	69	6F	6E	20	20	2D	20	20-49	6D	61	67	65	20	41	63	ion - Image Ac
000920	71	75	69	73	69	74	69	6F-6E	00	49	6D	61	67	65	20	quisition.Image
000930	41	63	71	75	69	73	69	74-69	6F	6E	20	4D	65	6E	75	Acquisition Menu
000940	00	43	6F	75	6C	64	20	6E-6F	74	20	6F	70	65	6E	20	.Could not open
000950	74	68	65	20	64	61	74	61-62	61	73	65	20	66	69	6C	the database fil
000960	65	2E	00	43	6F	75	6C	64-20	6E	6F	74	20	66	69	6E	e..Could not fin
000970	64	20	65	78	70	65	72	69-6D	65	6E	74	20	72	65	63	d experiment rec
000980	6F	72	64	20	69	6E	20	64-61	74	61	62	61	73	65	20	ord in database
000990	66	6F	72	20	6B	65	79	20-25	6C	64	2E	00	43	6F	75	for key %ld..Cou
0009A0	6C	64	20	6E	6F	74	20	6F-70	65	6E	20	74	68	65	20	ld not open the
0009B0	73	74	61	6E	64	61	72	64-73	20	66	69	6C	65	20	66	standards file f
0009C0	6F	72	20	6B	65	79	20	25-6C	64	2E	00	00	41	63	71	or key %ld...Aca
0009D0	75	69	72	65	20	00	20	69-6D	61	67	65	00	41	43	51	uire . image.ACQ
0009E0	55	49	53	49	54	49	4F	4E-20	2D	20	39	36	2D	57	45	UISITION - 96-WE
0009F0	4C	4C	00	41	43	51	55	49-53	49	54	49	4F	4E	20	2D	LL.ACQUISITION -
000AA0	20	39	36	2D	57	45	4C	4C-00	41	6C	69	67	6E	20	25	96-WELL.Align %
000A10	73	20	69	6D	61	67	65	20-77	69	74	68	20	67	72	69	s image with gri
000A20	64	2D	20	70	72	65	73	73-20	6D	6F	75	73	65	20	62	d, press mouse b
000A30	75	74	74	6F	6E	20	77	68-65	6E	20	64	6F	6E	65	2E	utton when done.
000A40	00	54	68	65	20	67	61	69-6E	20	61	6E	64	20	6F	66	.The gain and of
000A50	66	73	65	74	20	76	61	6C-75	65	20	66	6F	72	20	69	fset value for i
000A60	5D	61	67	65	20	25	73	20-61	72	65	20	25	33	64	20	mage %s are %3d
000A70	61	6E	64	20	25	33	64	2E-00	53	61	76	69	6E	67	20	and %3d..Saving
000A80	61	63	71	75	69	72	65	64-20	69	6D	61	67	65	20	74	acquired image t
000A90	6F	20	64	69	73	6B	20	3A-20	25	73	00	25	73	25	73	o disk : %s.%s%
000AA0	25	73	2E	25	73	25	73	25-64	00	25	73	25	73	25	64	%s.%s%.Align %s
000AB0	25	73	2E	25	73	25	73	00-41	6C	69	67	6E	20	25	73	image under cam
000AC0	20	69	6D	61	67	65	20	75-6E	64	65	72	20	63	61	6D	era, minimizing
000ADO	65	72	61	2C	20	6D	69	6E-69	6D	69	7A	69	6E	67	20	the features of
000AE0	74	68	65	20	66	65	61	74-75	72	65	73	20	6F	66	20	the difference i
000AF0	74	68	65	00	64	69	66	66-65	72	65	6E	63	65	20	69	mage. Press mou
000B00	6D	61	67	65	2E	20	20	50-72	65	73	73	20	6D	6F	75	se button when d
000B10	73	65	20	62	75	74	74	6F-6E	20	77	68	65	6E	20	64	one..Press any b
000B20	6F	6E	65	2E	00	50	72	65-73	73	20	61	6E	79	20	62	utton to .accept
000B30	75	74	74	6F	6E	20	74	6F-20	00	61	63	63	65	70	74	image alignment
000B40	20	69	6D	61	67	65	20	61-6C	69	67	6E	6D	65	6E	74	..The gain and o
000B50	2E	00	54	68	65	20	67	61-69	6E	20	61	6E	64	20	6F	ffset value for
000B60	66	66	73	65	74	20	76	61-6C	75	65	20	66	6F	72	20	image %s are %3d
000B70	69	6D	61	67	65	20	25	73-20	61	72	65	20	25	33	64	

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000B80	20 61 6E 64 20 25 33 64-2E 00 53 61 76 64-6E 67	and %3d.. Saving
000B90	20 61 63 71 75 69 72 65-64 20 69 6D 61 67 65 20	acquired image
000BA0	74 6F 20 64 69 73 6B 20-3A 20 25 73 00 41 64 6A	to disk : %s.Adj
000B80	75 73 74 20 67 72 69 64-20 70 6F 73 69 74 69 6F	ust grid positio
000BC0	6E 20 61 6E 64 20 64 69-6D 65 6E 73 69 6F 6E 73	n and dimensions
000B90	6E 20 75 73 69 6E 67 20 74-68 65 20 6D 6F 75 73 65	using the mouse
000B90	20 75 73 69 6E 67 20 6D-6F 75 73 65 20 74 6F 20	..Move mouse to
000BE0	2E 00 4D 6F 76 65 20 6D-6F 75 73 65 20 74 6F 20	move grid..Hold
000BF0	6D 6F 76 65 20 67 72 69-64 2E 00 4B 6F 6C 64 20	down left button
000C00	64 6F 77 6E 20 6C 65 68-74 20 62 75 74 74 6F 6E	to change grid
000C10	20 74 6F 00 63 68 61 6E-67 65 20 67 72 69 64 20	dimensions..(mov
000C20	64 69 6D 65 6E 71 67 6F-6E 73 2E 00 28 6D 6F 76	es lower right c
000C30	65 73 20 6C 6F 71 63 72-20 72 69 67 68 74 20 63	orner).Press rig
000C40	6F 72 6E 65 72 29 00 50-72 65 73 73 20 72 69 67	ht button to ret
000C50	68 74 20 62 75 74 74 6F-6E 20 74 6F 00 72 65 74	urn to the menu.
000C60	75 72 6E 20 74 6F 20 74-68 65 20 6D 65 6E 75 2E	.Adjust position
000C70	00 41 64 6A 75 73 74 20-70 6F 73 69 74 69 6F 6E	and dimensions
000C80	20 61 6E 64 20 64 69 6D-65 6E 73 69 6F 6E 73 20	of the elliptica
000C90	6F 66 20 74 68 65 20 65-6C 6C 69 70 74 69 63 61	l region using t
000CA0	6C 20 72 65 67 69 6F-6E-20 75 73 69 6E 67 20 74	he mouse.....e.
000CB0	68 65 20 6D 6F 75 73 44-A0 8C 00 02 ED 05 65 2E	.Move mouse to m
000CC0	00 4D 6F 76 65 20 6D 6F-75 73 65 20 74 6F 20 6D	ove region..Hold
000CD0	6F 76 65 20 72 65 67 69-6F 6E 2E 00 48 6F 6C 64	down left butto
000CE0	20 64 6F 77 6E 20 6C 65-66 74 20 62 75 74 74 6F	n to change dime
000CF0	6E 20 74 6F 00 63 68 61-6E 67 65 20 64 69 6D 65	nsions of area o
000DD0	6E 73 69 6F 6E 73 20 6F-66 00 61 72 65 61 20 6F	f interest..Pres
000D10	66 20 69 6E 74 65 72 65-73 74 2E 00 50 72 65 73	s right button t
000D20	73 20 72 69 67 68 74 20-62 75 74 74 6F 6E 20 74	o.return to the
000D30	6F 00 72 65 74 75 72 6E-20 74 6F 20 74 68 65 20	menu.....@.d.2
000D40	6D 65 6E 75 2E 00 C9 A0-07 00 02 40 01 64 00 32	.....D.....H
000D50	80 A0 07 00 02 44 01 96-B4 C8 00 A0 AE 00 02 48	....3.....
000D60	01 CC 00 33 00 00 00 00-00 07 00 00 00 00 00 03 00 02	.....
000D70	00 0B 00 00 00 01 00 00-00 00 00 00 00 00 00 00 00 02	.....&.....&.+
000DB0	00 26 00 0C 00 00 00 00 09-00 04 00 01 00 26 00 2B	.....&.....&.1....
000D90	00 00 00 0B 00 04 00 02-00 26 00 49 00 00 00 00 0E	.....&.....
000DA0	00 04 00 01 00 26 00 92-00 00 00 10 00 04 00 02	.....&.....
000DE0	00 26 00 B2 00 00 00 03-00 04 00 01 00 26 00 E4	.....&.....
000DC0	00 00 00 04 00 04 00 01-00 26 00 FB 00 00 00 05	.....&.....
000DD0	00 04 00 01 00 26 00 12-01 00 00 06 00 04 00 01	.....&.....
000DE0	00 26 00 29 01 00 00 00-00 00 00 00 00 00 00 00 02	.....&.....
000DF0	00 00 00 02 00 03 00 12-00 2D 00 00 00 00 00 00 00 02	.....&.....
000EO0	00 01 00 00 00 00 00 00 62-01 00 00 FA 9C 2F 00 CC	.....VO.....v...j..
000E10	A6 9D CC 9A 56 4F CC 82-9D CC 76 9D CC 6A 9D CC	^..R..F..:...."
000E20	5E 9D CC 52 9D CC 46 9D-CC 3A 9D CC 2E 9D CC 22	.....
000E30	9D CC 10 9D CC 0C 9D CC-0B 9D CC 04 9D BC A2 0B	.....
000E40	00 02 F2 01 23 00 00 00-02 00 00 39 A0 44 00 02	....#.....9.D..
000E50	76 06 43 6F 70 79 72 69-67 68 74 20 28 63 29 20	v.Copyright (c)

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000E60	31	39	38	39	2C	20	42	69-6F	6C	6F	67	69	63	61	6C	1989, Biological
000E70	20	56	69	73	69	6F	6E	20-49	6E	63	2E	20	20	41	6C	Vision Inc. A1
000E80	6C	20	72	69	67	68	74	73-20	72	65	73	65	72	76	65	1 rights reserve
000E90	64	00	4B	A0	36	00	01	00-00	C8	00	00	00	1E	B8	00	d.K.6.....
000EA0	00	BE	D8	BB	46	06	A3	5E-01	BB	46	08	A3	60	01	BB	....F..^..F..
000EB0	46	0A	0B	46	0C	74	0D	BB-46	0A	BB	56	0C	A3	4C	01	F..F.t..F..V..L.
000EC0	89	16	4E	01	0E	E8	00	00-1F	C9	CB	67	9C	14	00	84	..N.....9..
000ED0	2D	56	15	C4	29	9D	C4	25-9D	C4	14	9D	C4	0E	9D	C8	-V..)..%.....
000EE0	08	9D	D5	A0	0A	00	03	00-00	00	00	00	00	00	00	53	.....S
000EF0	9C	0D	00	CB	04	56	48	CB-02	56	38	CB	00	36	36	41	....VH..VB..V6A
000FO0	A0	B6	03	01	32	00	CB	FE-00	00	57	5e	1E	B8	00	00	....Z....WV..
000F10	BE	D8	1E	68	38	02	9A	00-00	00	00	B3	C4	04	1E	68	...h8.....h
000F20	60	02	9A	00	00	00	00	83-54	04	9A	00	00	00	00	9A	.....
000F30	00	00	00	00	9A	00	00	00-00	9A	00	00	00	00	00	9A	00
000F40	00	00	00	89	46	F0	89	56-F2	0B	D2	7F	0F	7D	05	3D	....F..V..I.=
000F50	01	00	73	08	2B	C0	89	46-F2	89	46	F0	94	00	00	00	..s.+..F..F..
000F60	00	9A	00	00	00	00	89	46-F0	89	56	F2	0B	D2	7F	0F	....F..V..
000F70	7D	05	3D	01	00	73	08	2B-C0	89	46	F2	89	46	F0	9A	..=.s.+..F..F..
000FB0	00	00	00	00	0B	C0	75	1B-9A	00	00	00	00	1E	68	77	....u.....hw
000F90	02	9A	00	00	00	00	83	C4-04	6A	00	9A	00	00	00	00	....j.....
000FA0	83	C4	02	BE	06	00	00	BB-46	F0	BB	56	F2	26	A3	04	....F..V..&..
000FB0	00	26	89	16	06	03	6A	05-6A	05	BB	00	00	BA	00	00	.&....j.j.....
000FC0	52	50	9A	00	00	00	00	83-C4	08	0B	C0	75	21	9A	00	RP.....u!
000FD0	00	00	00	FF	76	F2	FF	76-F0	1E	68	99	02	9A	00	00	....v..v..h..
000FE0	00	00	83	C4	08	6A	00	9A-00	00	00	00	83	C4	02	FF	....j.....
000FF0	76	F2	FF	76	F0	9A	00	00-00	00	83	C4	04	89	46	F6	v..v.....F..
001000	89	56	F8	0B	D0	75	21	9A-00	00	00	00	FF	76	F2	FF	.v..u!.....v..
001010	76	F0	1E	68	D3	02	9A	00-00	00	00	83	C4	08	6A	00	v..h.....j..
001020	9A	00	00	00	00	83	C4	02-BB	0A	00	BA	00	00	52	50	.....RP.....RP
001030	BB	08	00	52	50	B8	06	00-52	50	B8	04	00	52	50	B8	...RP...RP...RP.
001040	0A	00	BA	00	00	52	50	B8-08	00	52	50	B8	06	00	52	....RP...RP...R
001050	50	B8	04	00	52	50	B8	02-00	52	50	B8	00	00	52	50	P...RP...RP...RP
001060	9A	00	00	00	00	83	C4	2B-9A	00	00	00	00	00	89	86	16
001070	FF	89	96	1B	FF	9A	00	00-00	00	89	86	1A	FF	89	96	.....
001080	1C	FF	9A	00	00	00	00	89-86	1E	FF	89	96	20	FF	9A	.....
001090	00	00	00	00	89	B6	22	FF-89	96	24	FF	1E	68	4A	01	...."....\$..hJ.
0010A0	1E	68	48	01	9A	00	00	00-00	83	C4	08	9A	00	00	00	.HH.....
0010B0	00	B3	3E	48	01	00	75	13-B3	3E	4A	01	00	75	OC	C7	..>H..u..>J..u..
0010C0	06	48	01	CC	00	C7	06	4A-01	33	00	FF	36	4A	01	9A	.H.....J.3..6J..
0010D0	00	00	00	00	83	C4	02	FF-36	48	01	9A	00	00	00	00	....6H.....
0010E0	B3	C4	02	2B	F6	BD	86	16-FF	89	86	12	FF	8C	96	14	....+
0010F0	FF	C4	9E	12	FF	26	C4	1F-B9	01	00	56	BF	02	03	BB	....&....V..
001100	F3	1E	1E	06	1F	07	D1	E9-1B	C0	3B	C9	F3	A7	75	04	.....;
001110	2B	CB	F3	A6	1F	5E	74	03-E9	5D	02	B9	76	FC	C7	46	+....^t..J..v..F
001120	F4	00	00	OB	F6	7F	03	E9-D1	00	BD	B6	28	FF	89	86	.....(..
001130	12	FF	8C	96	14	FF	8D	B6-16	FF	89	86	0E	FF	BC	96	.....

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001140	10 FF BE A6 01 BB 7E FC-BB C7 01 46 F4 B9-J9 00	.....~....F....
001150	56 57 BE 03 03 C4 BE 12-FF D1 E9 F2 A5 13 C9 F2	VW.....
001160	A4 5F 5E C4 9E 0E FF 26-BB 07 26 BB 57 02 BB D8	-^...&..&..W...
001170	B9 9E 06 FF B9 96 08 FF-57 56 C4 BE 06 FF 1E C5	.....WV.....
001180	B6 12 FF B9 FF FF 33 C0-F2 AE F7 D1 2B F9 BB D9	.....3.....+
001190	87 FE BC DA 06 BE C2 1F-B9 FF FF F2 AE 4F BB CB	.....O..
0011A0	D1 E9 F2 A5 13 C9 F2 A4-1F 5E 5F 57 56 BF OC 03	.....WV..
0011B0	BC DB 8E C0 1E C9 B6 12-FF B9 FF FF 33 C0 F2 AE	.....3..
0011C0	F7 D1 2B F9 BB D9 87 FE-06 BE C2 1F B9 FF FF F2	..+.....
0011D0	AE 4F BB:CB D1 E9 F2 A5-13 C9 F2 A4 1F 5E 5F 8B	.0.....
0011E0	86 12 FF B9 04 B9 54 02-B3 86 12 FF 32 83 86 0E	....T....Z..
0011F0	FF 04 83 C6 0C 4F 74 03-E9 52 FF BB 46 FC B9 46	....Ot..R..F..F
001200	F4 3D 04 00 7D 7B BB DD-D1 E0 03 C2 D1 E0 D1 B9	=,..3..
001210	89 86 02 FF BB F0 B1 C6-9E 01 BB FB B1 C7 A0 01	.....
001220	05 A2 01 B9 86 0C FF BB-B6 02 FF 05 A4 01 B9 86	.....
001230	0E FF BB B6 02 FF 05 A6-01 B9 86 12 FF BB 04 00	.....
001240	2B C2 BB C8 01 4E F4 C7-04 00 00 C7 05 00 00 BB	+...N..
001250	9E 0C FF C7 07 00 00 BB-9E 0E FF C7 07 00 00 BB	.....
001260	9E 12 FF 2B D0 B9 47 02-B9 07 B3 C6 0C B3 C7 0C	...+..G..
001270	B3 B6 0C FF 0C B3 B6 0E-FF 0C B3 B6 12 FF 0C E2	.....
001280	C6 C7 45 F4 05 00 BB 04-00 2B 46 FC BB FB BE 5E	..F.....+F....
001290	01 B9 04 00 29 3C B3 C6-0C E2 F9 0E EB 00 00 B3	....) <.....
0012A0	3E 5E 01 00 75 5A B3 7E-FC 01 7C 0F FF B6 18 FF	>..uZ..?..1..
0012B0	FF B6 16 FF 0E EB 00 00-3D 9C 0F 01 87 B0 56 61	.....=....Va
0012C0	C7 9B 9D 87 97 56 5E C7-B9 9D C7 31 9D C7 28 9D	....V^....1..%
0012D0	C7 1B 9D C7 18 9D C7 12-9D C6 A6 9D C5 4D 9D C6	.....M..
0012E0	3D 9D C5 F7 9D CD D6 56-49 C5 DC 9D CD CA 56 47	=.....VI.....VG
0012F0	C5 C7 9D C5 C1 9D C5 BB-9D C5 B4 9D C5 AD 9D CD	.....
001300	A7 56 50 CD 9F 56 3D C5-9C 9D C5 98 9D CD 8A 56	.VP..V=.....V
001310	0D CD 7D 56 0C CD 70 56-09 CD 63 56 05 CD 5B 56	.3V..PV..EV..EV
001320	11 C5 56 56 48 C5 51 56-48 C5 4C 56 48 C5 47 56	..VVH.QVH.LVH.GV
001330	48 C5 42 56 48 C9 3D 56-48 C5 3A 56 48 C5 35 56	H.BVH.=VH.:VH..5V
001340	38 C5 30 56 38 C5 2B 56-38 C9 26 56 38 C5 23 56	8.OVB.+VB.&VB.#V
001350	38 CD 1B 56 3A CD 11 56-37 C5 0E 9D CD 02 56 14	8..V:..V7....V.
001360	CC FO 56 44 CC E2 56 3A-CC D8 56 37 C4 D5 9D CC	..VD..V:..V7....
001370	C9 56 14 CC BD 56 1B C8-B8 56 3D C4 B5 56 3C C4	.V...V...V<..V<.
001380	AE 56 36 C4 A7 56 36 C4-9F 9C CC 96 56 3A CC 8C	.V6..V6.....V:..
001390	56 37 C4 69 9D CC B3 56-14 CC 7A 56 5B CC 5C 56	V7.....V..zV1..V
0013A0	23 CC 57 56 57 CC 39 56-23 CC 34 56 54 CC 2F 56	#.WVW.SV#.4VT./V
0013B0	2B CC 2A 56 29 CC 25 56-27 CC 1D 56 3B C4 1A 9D	+.*V).ZV'..V;..
0013C0	CC 11 56 4B C4 0E 9D C8-08 9D BB A0 B5 03 01 E4	..VK.....
0013D0	03 B3 C4 04 0E EB 00 00-C7 46 F4 02 00 83 7E FC	.....F....~
0013E0	02 7C 32 8D 86 1A FF B9-86 06 FF BC 96 08 FF BB	.12.....
0013F0	7E FC BB 76 F4 C4 9E 06-FF 26 FF 77 02 26 FF 37	~..v....&..w.&..7
001400	56 0E E8 00 00 B3 C4 06-B3 86 06 FF 04 46 3B F7	V.....F;..
001410	7E E3 B9 76 F4 0E EB 00-00 1E 68 13 03 1E 68 DA	~..v.....h...h.

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001420 01 9A 00 00 00 00 B3 C4-0B 9A 00 00 00 00 B3 3E .....>  
 001430 5E 01 00 75 1E 6A 05 1E-6B DA 01 9A 00 00 00 00 ^..u.j..h....  
 001440 B3 C4 06 6A 01 6A 05 1E-6B DA 01 9A 00 00 00 00 ..j.j..h....  
 001450 B3 C4 08 C7 46 FA 00 00-BB 7E FC BB 76 F4 6B 00 ....F...~..v.h.  
 001460 00 6B 00 00 1E 6B DA 01-9A 00 00 00 00 B3 C4 0B ..h..h....  
 001470 89 B6 26 FF 9A 00 00 00-00 BB 86 26 FF 2D 01 00 ..&.....&....  
 001480 3D 0B 00 76 03 E9 5F 01-03 C0 93 2E FF A7 02 06 =..v..-.....  
 001490 90 B3 86 12 FF 04 46 B3-FE 04 7C 03 E9 95 FD E9 .....F..i.....  
 0014A0 6B FD 90 B3 FF 01 7C 0F-FF B6 18 FF FF B6 16 FF h.....!.....  
 0014B0 0E EB 00 00 B3 C4 04 0E-E8 00 00 BE 02 00 3B FE .....>.....  
 0014C0 7C 29 8D B6 1A FF B9 86-06 FF BC 95 0B FF C4 9E !).....  
 0014D0 06 FF 26 FF 77 02 26 FF-37 56 0E EB 00 00 B3 C4 ..&w.&.7V.....  
 0014E0 06 B3 86 06 FF 04 46 3B-F7 7E E3 0E EB 00 00 E9 .....F;..~....  
 0014F0 0F 01 90 0E EB 00 00 E9-07 01 90 6A 00 6A 00 9A .....>.....j.j..  
 001500 00 00 00 00 B3 C4 04 6A-01 0E EB 00 00 B3 C4 02 .....>.....j.....  
 001510 1E 6B 00 00 9A 00 00 00-00 B3 C4 04 6A 00 6A 02 ..h.....!..j.j..  
 001520 7A 00 00 00 00 B3 C4 04-6A 14 6A 01 6A 00 6A 01 .....>.....j.j..j.j..  
 001530 6A 00 6A 02 9A 00 00 00-00 B3 C4 0C 6A 01 6A 01 j.j.....j.j..  
 001540 6A 00 9A 00 00 00 00 B3-C4 06 6A 01 6A 02 6A FF j.....!..j.j..  
 001550 6A 00 9A 00 00 00 00 B3-C4 08 6A 01 6A 02 6A FF j.....!..j.j..  
 001560 6A 00 9A 00 00 00 00 B3-C4 08 6A 00 6A 01 9A 00 j.....!..j.j..  
 001570 00 00 00 B3 C4 04 6A 01-6A 01 9A 00 00 00 00 B3 .....>.....j.j..  
 001580 C4 04 1E 6B 29 03 1E 6B-DA 01 9A 00 00 00 00 B3 ..h)..h.....  
 001590 C4 0B EB 6D 90 B3 FF 01-7C 67 FF B6 18 FF FF B6 ..m....!g.....  
 0015A0 16 FF 0E EB 00 00 B3 C4-04 EB 56 B3 FF 02 7C 51 .....V..!Q  
 0015B0 FF B6 1C FF FF B6 1A FF-6A 02 0E EB 00 00 B3 C4 .....>.....j.....  
 0015C0 06 EB 3E B3 FF 03 7C 39-FF B6 20 FF FF B6 1E FF ..>..!9.. .....  
 0015D0 6A 03 EB E6 90 B3 FF 04-7C 27 FF B6 24 FF FF B6 j.....!..\$.  
 0015E0 22 FF 6A 04 EB D4 90 C7-46 FA 01 00 EB 13 90 B6 "j.....F.....  
 0015F0 04 05 05 FE 04 0E 05 FA-05 AB 05 BE 05 D6 05 EB .....>.....  
 001600 05 6A 14 6A 14 9A 00 00-00 00 B3 C4 04 B3 7E FA ..j.j.....~..  
 001610 00 75 03 E9 48 FE B9 76-F4 BE 06 02 00 26 FF 36 ..u..H..v....&.6  
 001620 0A 00 26 FF 36 08 00 26-FF 36 06 00 26 FF 36 04 ..&.6..&.6..&.6.  
 001630 00 8E 06 04 00 26 FF 36-0A 00 26 FF 36 08 00 26 .....&.6..&.6..&.  
 001640 FF 36 06 00 26 FF 36 04-00 26 FF 36 02 00 26 FF ..6..&.6..&.6..&.  
 001650 36 00 00 9A 00 00 00 00-B3 C4 14 FF 36 4A 01 FF 6H.....!..v..v..  
 001660 36 48 01 9A 00 00 00 00-B3 C4 04 FF 76 FB FF 76 6H.....!..v..v..  
 001670 F6 9A 00 00 00 B3 C4-04 FF 76 FB FF 76 F6 9A .....>.....&.6..  
 001680 00 00 00 00 B3 C4 04 BE-06 04 00 26 FF 36 0A 00 ..&.6..&.6..&.6..&.  
 001690 26 FF 36 08 00 26 FF 36-06 00 26 FF 36 04 00 26 ..6..&.6.....  
 0016A0 FF 36 02 00 26 FF 36 00-00 9A 00 00 00 00 B3 C4 ..>..u.j..j....j  
 0016B0 0C B3 3E 60 01 00 75 07-6A 03 6A 01 EB 05 90 6A ..j.....!..j.j..  
 0016C0 03 6A 00 9A 00 00 00 00-B3 C4 04 6A-01 0E EB 00 00 B3 C4 02 .....>.....j.....  
 0016D0 00 00 00 00 B3 C4 04 6A-01 0E EB 00 00 B3 C4 02 ..h.....!..j.j..  
 0016E0 1E 6B 00 00 9A 00 00 00-00 B3 C4 04 6A 00 6A 02 ..h.....!..j.j..  
 0016F0 9A 00 00 00 00 B3 C4 04-1E 6B DA 01 9A 00 00 00 .....h.....

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001700	00	B3	C4	04	1F	5E	5F	C9-CB	CB	50	00	00	1E	B8	00	.....^_...P....
001710	00	BE	DB	9A	00	00	00	00-FF	76	08	FF	76	06	1E	68	.....v..v..h
001720	3F	03	BD	46	B0	16	50	9A-00	00	00	00	83	C4	0C	BD	?..F..P....
001730	46	B0	16	50	6A	00	9A	00-00	00	00	83	C4	06	BB	00	F..Pj....
001740	04	BA	00	00	52	50	52	50-52	50	68	00	01	6A	00	6A	....RPRPRPh..j..j
001750	00	6A	00	9A	00	00	00	00-83	C4	14	68	FF	00	9A	00	.j.....h....
001760	00	00	00	B3	C4	02	6A	00-6A	03	9A	00	00	00	00	83	....j.j....
001770	C4	04	FF	36	4A	01	9A	00-00	00	00	83	C4	02	FF	36	....6J....
001780	48	01	0D	9C	68	01	C7	AF-9D	CF	A6	56	47	C7	A3	9D	H..f.....VG...
001790	CF	9A	56	26	CF	BE	56	56-CF	83	56	55	CB	71	54	05	..V&..VV..VU.aT.
0017A0	C7	6E	54	05	CF	66	56	46-CF	57	56	08	C7	4F	9D	CF	.nT..+MF..WV..D..
0017B0	43	56	2B	CB	3E	9D	CF	2C-56	10	C7	29	9D	CF	20	56	CV+.>..V....V
0017C0	26	CF	14	56	2C	C7	11	9F-97	04	56	2A	CE	FF	56	26	&..V.....V..V..V..
0017D0	CE	F3	56	51	C6	E2	9D	CE-19	56	4C	C6	D6	56	48	C6	..VQ....VL..VH.
0017E0	D1	56	48	C6	CC	56	48	C6-C7	56	48	C5	C2	56	48	C6	.VH..VH..VH..VH.
0017F0	BD	56	48	C6	B8	9C	CE	AF-56	3F	CE	A1	56	2D	CE	93	.VH....VZ..V..
001800	56	43	C6	90	9D	C6	8C	9D-CE	83	56	1F	C6	80	56	48	VC.....V...VH
001810	C6	7B	56	48	C6	76	56	48-C6	71	56	48	C6	6C	56	48	.(VH..VH..VH..VH..VH..
001820	C6	67	56	48	C6	62	9C	C6-5E	56	38	C6	59	56	38	C6	.gVH.b..V8..YV8..
001830	54	56	38	C6	4F	56	38	C6-4A	9C	CE	38	56	4A	C6	2E	TVB..OVB..J..SVJ..
001840	2E	C6	2C	8E	C6	2A	8E	C6-2B	8E	C6	26	8E	C6	24	8E	....*..(....\$..
001850	C6	22	8E	C6	20	8E	C6	1E-BE	85	EB	56	03	85	D3	56	."..V....V..V
001860	61	CD	BA	56	0B	CD	B7	9D-C5	B3	9D	CD	AA	56	34	CD	a..V.....V4..
001870	9E	56	53	CD	92	56	31	CD-82	56	31	CD	72	56	2F	CD	.V3..V1..Vi..rV/..
001880	64	56	2E	CD	50	56	26	CD-44	56	2C	CS	41	9F	85	3A	dV..PV..DV..A..
001890	56	24	CD	2F	56	26	85	24-56	62	85	1C	56	06	85	0B	V*..V8..%Vb..V..
0018A0	56	03	84	EB	56	62	84	E1-56	61	C4	B9	5E	CC	A4	56	V...Vb..Va....V
0018B0	54	CC	98	56	12	C4	95	9D-D4	91	56	54	CB	8E	56	54	T..V....VT..VT
0018C0	CC	7B	56	0F	C4	78	9D	CC-6B	56	0E	C4	68	9D	C4	5F	.EV..x..KV..h....
0018D0	9D	CC	59	56	4E	CD	51	56-0B	C4	4E	9D	C4	4A	9D	84	.YVN..DV..N..J..
0018E0	46	56	06	84	32	56	03	84-05	56	62	67	A0	E9	01	01	FV..2V...Vbg....
0018F0	95	07	9A	00	00	00	00	B3-C4	02	6A	02	9A	00	00	00	.....j....
001900	00	B3	C4	02	6A	FF	9A	00-00	00	00	83	C4	02	9A	00	.....j....
001910	00	00	00	9A	00	00	00	00-6A	00	9A	00	00	00	00	83	.....j....
001920	C4	02	9A	00	00	00	00	FF-36	4A	01	FF	36	48	01	FF	.....6J..6H..
001930	76	08	FF	76	06	1E	68	77-03	8D	46	B0	16	50	9A	00	V...V..hw..F..P..
001940	00	00	00	B3	C4	10	BD	46-B0	16	50	6A	00	9A	00	00	.....F..Pj....
001950	00	00	B3	C4	06	6A	00	6A-02	7A	00	00	00	00	83	C4	....j.j....
001960	04	B8	00	02	BA	00	00	52-50	52	50	52	50	68	00	01	....RPRPRPh..
001970	6A	00	6A	00	6A	00	9A	00-00	00	00	83	C4	14	6A	00	j..j..j....j..
001980	6A	03	6A	00	9A	00	00	00-00	83	C4	06	6A	00	6A	06	j..j....j..j..j..j..
001990	9A	00	00	00	00	B3	C4	04-6A	01	6A	02	6A	FF	6A	00	....j..j..j..j..j..
0019A0	9A	00	00	00	00	00	83	C4	08-6A	01	6A	02	6A	FF	6A	00
0019B0	9A	00	00	00	00	00	83	C4	08-83	3E	60	01	00	75	30	BB
0019C0	00	04	BA	00	00	52	50	52-50	52	50	68	00	01	6A	00	....RPRPRPh..j..
0019D0	6A	00	6A	00	9A	00	00	00-00	83	C4	14	6A	00	6A	01	j..j....j..j..j..

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0019E0	6A 00 9A 00 00 00 00	83-C4 06 6A 01 EB 03 90 6A	j.....j....j
0019F0	00 6A 00 9A 00 00 00	00-83 C4 04 6A 01 0E EB 00	.j.....j....
001A00	00 83 C4 02 1E 68 00	00-1E 68 AF 03 1E 68 50 00	....h...h...hP.
001A10	9A 00 00 00 00 83 C4	0C-1E 68 50 00 6A 01 9A 00	.....hP.j...
001A20	00 00 00 83 C4 06	1E 68-00 00 9A 00 00 00 00	.....h.....
001A30	C4 04 6A 00 6A 02	9A 00-00 00 00 83 C4 04 BB 00	..j.j.....
001A40	00 BA 00 00 52 50	9A 00-00 00 00 83 C4 04 9A 00	....RP.....
001A50	00 00 00 1F C9 CB	90 CB-00 00 00 1E BB 00 00 BE	.....
001A60	BB 83 3E 5C 01 00	74 31-FF 76 06 FF 36 5A 01 FF	..>\..ti.v..6Z..
001A70	36 58 01 FF 36 56 01	FF-36 54 01 FF 36 52 01 FF	6X..6V..6T..6R..
001A80	36 50 01 FF 36 4E 01	FF-36 4C 01 9A 00 00 00 00	6F..6N..6L.....
001A90	52 50 1E 68 D2 03	EB 2F-90 FF 36 5A 01 FF 36 58	RP.h.../.6Z..6X
001AA0	01 FF 36 56 01 FF	36 54-01 FF 36 52 01 FF 36 50	..6V..6T..6R..6P
001AB0	01 FF 76 06 FF 36 4E	01-FF 36 4C 01 9A 00 00 00	..v..6N..6L.....
001AC0	00 52 50 1E 68 E0 03	1E-68 00 00 9A 00 00 00 00	..RP.h...h.....
001AD0	83 C4 1E 1F C9 CB	90 A7-90 E3 00 CD DA 56 08 C5	.....V..
001AE0	D7 9F C5 D3 9D CD	CB 56-39 C5 C8 9D C5 C4 9D C5	.....V9.....
001AF0	BD 9D C5 B9 9D C5	B5 9D-C5 B1 9D C5 AD 9D C5 A9	.....V9.....
001B00	9D C5 A2 9D CD	9A 56 39-C5 97 9D C5 93 9D C5 BF	.....C..
001B10	9D C5 8B 9D C5	87 9D C5-83 9D C5 7F 9D C5 7B 9D	.....
001B20	C5 71 9D C9 6B	9D CD 5D-56 4E CD 55 56 19 C9 50	..q..k..JVN.UV..P
001B30	56 22 C5 4D 56 22	CD 45-56 26 CD 39 56 60 C5 36	V".MV".EV&.9V'.6
001B40	9F CD 2D 56 46	C5 28 9F-CD 1F 56 08 C5 1C 9F C5	..-VF.(...V.....
001B50	18 9D C5 14 9F	85 0D 56-2A CD 02 56 26 CC F1 56	.....V*.V&..V
001B60	56 CD E3 55 55	C8 D1 54-05 C4 CE 54 05 C4 C8 9D	\..VU..T..T..
001B70	CC BF 56 31 CC AF	56 31-CC 9F 56 5D CC 93 56 50	..V1..V1..V1..V1
001B80	CC 65 56 55 C8	73 54 05-C4 70 54 05 CC 68 56 26	..VU..st..pt..hv&
001B90	CC 5C 56 46 CC 4D	56 08-C4 45 9D C4 3B 9D C4 37	\WF.MV..E..:..7
001BA0	9D CD 31 56 2B	CD 29 56-5A CC 22 56 54 CC 1D 56	..1V+.)VZ."VT..V
001BB0	53 CC 15 56 5A	CD 0B 56-58 CC 01 56 49 C5 A0 0A	S..VZ..VX..VI..
001BC0	00 03 06 00 00 00	00-00 00 4D 9C 0D 00 C8 04	.....M....
001BD0	56 04 C8 02 56 07	CB 00-56 0A E2 A0 60 03 01 7A	V...V...V...V...z
001BE0	09 C8 5A 00 00 57	56 1E-B8 00 00 BE DB B8 00 00	..Z..WV.....
001BF0	BA 00 00 52 50	9A 00 00-00 00 83 C4 04 FF 76 0A	..RP.....V..
001C00	FF 76 08 1E 68	EE 03 BD-46 B0 16 50 9A 00 00 00	.v..h...F..P...
001C10	00 83 C4 0C	BB 00 00 BA-00 00 52 50 8D 46 B0 16	.....RP.F..
001C20	50 6A 01 6A 00	9A 00 00-00 00 83 C4 0C BB 00 00	Pj.j.....
001C30	BA 00 00 52 50	1E 68 2A-04 6A 01 6A 01 9A 00 00	...RP.h>j.j...
001C40	00 00 83 C4 0C	BB 00 00-BA 00 00 52 50 9A 00 00	.....RP..
001C50	00 00 83 C4 04	BB 00 00-BA 00 00 52 50 1E 68 5B	.....RP.hC
001C60	04 6A 02 6A 01	9A 00 00-00 00 B3 C4 0C BB 00 00	..j.j.....
001C70	BA 00 00 52 50	1E 68 70-04 6A 02 6A 02 9A 00 00	..RP.hp.j.j...
001C80	00 00 83 C4 0C	6A 00 6A-02 9A 00 00 00 00 B3 C4	....j.j.....
001C90	04 68 00 02 68	00 02 6A-00 6A 00 9A 00 00 00	..h..h..j.j.....
001CA0	B3 C4 08 6A 00	6A 01 9A-00 00 00 00 B3 C4 04 6A	...j.j.....j
001CB0	00 6A 01 9A 00	00 00 00 00-B3 C4 04 BB 00 03 BA 00	.j.....

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001CC0	00 52 50 52 50 52 50 6B-00 01 6A 00 6A 00 6A 00	.RPRPRPh..j.j.j..
001CD0	9A 00 00 00 00 83 C4 14-6A 00 9A 00 00 00 00 83	.....j.....
001CE0	C4 02 6A 00 6A 04 6A 04-6A 01 6A 07 9A 00 00 00	..j..j..j..j..j..
001CF0	00 83 C4 0A 6A 03 6A 00-9A 00 00 00 00 83 C4 04	...j..j.....
001D00	6A 00 6A 00 9A 00 00 00-00 83 C4 04 6A 00 9A 00	j..j.....j..
001D10	00 00 00 83 C4 02 6A 03-6A 03 6A 02 6A 00 9A 00	.....j..j..j..j..
001D20	00 00 00 83 C4 08 2B F6-6A 02 9A 00 00 00 00 83	....F..F.F..F.F..
001D30	C4 02 8D 46 A8 16 50 8D-46 AC 16 50 8D 46 AE 16	F.....t..
001D40	50 9A 00 00 00 00 83 C4-0C 8B FB AB 02 74 03 BE	....t..v..v..v..
001D50	01 00 0B F6 74 D2 89 7E-A6 B7 76 AA FF 76 AB 9A	.....j..j..j..
001D60	00 00 00 00 83 C4 02 6A-00 6A 02 9A 00 00 00 00	.....&.....&
001D70	83 C4 04 8E 06 06 00 26-BB 1E 00 00 8A 87 40 01	..P....&.....&
001D80	2A E4 50 8E 06 06 00 26-BB 1E 00 00 8A 87 40 01	P....&.....&P.
001D90	50 8E 06 0A 00 26 8B 1E-00 00 8A 87 40 01 50 6A	.....j..j..j..j..
001DA0	01 9A 00 00 00 00 83 C4-08 6A 01 6A 02 6A FF 6A	.....j..j..j..j..
001DB0	00 9A 00 00 00 00 83 C4-08 6A 01 6A 02 6A FF 6A	.....j..j..j..j..
001DC0	00 9A 00 00 00 00 83 C4-08 BB 00 04 BA 00 00 00 82	.....PFFPh..j..j..
001DD0	50 52 50 52 50 6B 00 01-6A 00 6A 00 6A 00 9A 00	.....h.....
001DE0	00 00 00 83 C4 14 6B FF-00 FA 00 00 00 00 00 83 C4	.....6J..6H..V
001DF0	02 9A 00 00 00 00 FF 3E-4A 01 FF 3E 4B 01 FF 76	..v..h..F..F..
001E00	0A FF 76 08 1E 6B 88 04-2D 46 B0 16 50 9A 00 00	....F..Fj..
001E10	00 00 83 C4 10 BD 46 B0-16 50 6A 00 9A 00 00 00	....j..j..j..
001E20	00 83 C4 06 6A 00 6A 06-9A 00 00 00 00 00 83 C4 08	j..j..j..j..
001E30	6A 01 6A 02 6A FF 6A 00-9A 00 00 00 00 00 83 C4 08	j..j..j..j..
001E40	6A 01 6A 02 6A FF 6A 00-9A 00 00 00 00 00 83 C4 08	....j..j..j..
001E50	9A 00 00 00 00 83 3E 60-01 00 75 2F BB 00 04 8A	....j..j..j..
001E60	00 00 52 50 52 50 52 50-6B 00 01 6A 00 6A 00 6A	.RPRPRPh..j..j..
001E70	00 9A 00 00 00 00 83 C4-14 6A 00 6A 01 6A 00 9A	.....j..j..j..
001E80	00 00 00 00 83 C4 06 6A-01 EB 02 6A 00 6A 00 9A	.....j..j..j..
001E90	00 00 00 00 83 C4 04 FF-76 06 0E EB 00 00 00 83 C4	.....V.....
001EA0	02 1E 6B 00 00 1E 6B C0-04 1E 6B 50 00 9A 00 00	..h..h..RF..
001EB0	00 00 83 C4 0C 1E 6B 50-00 6A 01 9A 00 00 00 00	....h..j..
001EC0	83 C4 06 1E 6B 00 00 9A-00 00 00 00 83 C4 04 6A	....h..j..
001ED0	00 6A 02 9A 00 00 00 00-83 C4 04 BB 00 00 00 00	.RP..
001EE0	00 52 50 9A 00 00 00 00-83 C4 04 9A 00 00 00 00	^.....WV..
001EFO	1F 5E 5F C9 CB CB OC 00-00 57 56 1E BB 00 00 00	+.....RF..
001F00	D8 2B FF BB 00 00 BA 00-00 52 50 9A 00 00 00 00	....RP..h..j
001F10	B3 C4 04 BB 00 00 BA 00-00 52 50 1E 6B E3 04 6A	W..
001F20	01 57 9A 00 00 00 00 00 83-C4 0C BB 00 00 00 00	RP.....W
001F30	52 50 9A 00 00 00 00 00 83-C4 04 BB 00 00 00 AA 9C 77	..ZV..RV..MV..JV
001F40	01 C7 5A 56 17 CF 52 56-19 CB 4D 56 17 C7 4A 56	..BVA.<.6V".3V"
001F50	17 CF 42 56 41 C7 3C 9D-CB 36 56 22 C7 33 56 22	+V..&V"..#V"....
001F60	CF 2B 56 19 CB 26 56 22-C7 23 56 22 CB 1C 9D CF	.VN..V..V"....V".
001F70	0B 56 4E CF 03 56 19 CA-FE 56 22 C6 FB 56 22 CE	.V&..V'....VF..
001F80	F3 56 26 CE E7 56 60 C6-E4 9F CE DB 56 46 C6 D6	....V..
001F90	9F CE CD 56 08 C6 CA 9F-C6 C6 9D C6 C2 9F BB	

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001FA0	56 2A CE AF 56 26 CE 9F-56 SC CE 91 56 55 CA 7F	V*..V&..V\..VU.
001FB0	54 05 C6 7C 54 05 C6 76-9D CE 70 56 54 CE 6B 56 T..IT..v..PVT.hV	
001FC0	31 CE 58 56 31 CE 4B 56-5D CE 3C 56 46 CE 2D 56 1.XVI.HVJ.<VF.-V	
001FD0	08 C6 25 9D C6 1B 9D C6-17 9D CE 11 56 2B CE 09 ..Z.....V+..	
001FE0	56 56 CD FE 56 55 C9 EC-54 05 C5 E9 54 05 CD E1 VV..VU..T..T..	
001FF0	56 31 CD D1 56 31 CD C1-56 35 C5 BB 9D C5 B7 56 V1..V1..V5....V	
002000	04 C5 B2 9C C5 AD 9D C5-A9 56 07 C5 A4 9C C5 9D ..V.....V&VR	
002010	9D C5 99 56 0A C5 94 9C-CD BB 56 26 CD 7F 56 52 .aV2.JVO.>V1..V%	
002020	CD 61 56 32 CD 4A 56 30-CD 3E 56 2B CD 2E 56 25 .#V1..V...V...V.	
002030	CD 24 56 21 CD 1B 56 1E-CD 0C 56 1C CC FA 56 1A ..VU..T..T..V.	
002040	CC F0 56 55 C8 DE 54 0E-04 DB 54 05 CC D3 56 1B ..V...V...V&..VA	
002050	CC C7 56 1B CC BB 5e 1E-CC A9 56 26 CC 9D 56 41 ..V...V...V...VA	
002060	C4 96 9D C8 90 56 17 C4-BD 56 17 CC 85 56 41 C4 ..xV..UV..mV..h	
002070	7E 9D C8 78 56 17 C4 75-56 17 CC 6D 56 19 C8 68 V..eV..JVA.V..PV	
002080	56 17 C4 65 56 17 CC 5D-56 41 C4 56 9D C8 50 56 ..MV".EVA.7V".4V	
002090	22 C4 4D 56 22 CC 45 56-41 C8 37 56 22 C4 34 56 ..V...\$...V...V"	
0020A0	22 CC 2C 56 05 C4 24 9D-CC 15 56 19 C8 10 56 22 ..V"....I.....	
0020B0	C4 0D 56 22 C8 08 9D 49-A0 CB 02 01 D6 0E BA 00 ..RF..h..j.j.....	
0020C0	00 52 50 1E 68 18 05 6A-02 6A 01 9A 00 00 00 00 ..RF..h1.j	
0020D0	83 C4 OC BB 00 00 BA 00-00 52 50 1E 68 31 05 6A ..j.....	
0020E0	02 6A 03 94 00 00 00 00-83 C4 OC BB 00 00 BA 00 ..j.....	
0020F0	00 52 50 1E 68 4A 05 6A-02 6A 04 9A 00 00 00 00 ..RF..hJ.j.j.....	
002100	83 C4 OC BB 00 00 BA 00-00 52 50 1E 68 62 05 6A ..RF..hb..j	
002110	02 6A 05 9A 00 00 00 00-83 C4 OC BB 00 00 BA 00 ..j.....	
002120	00 52 50 1E 68 7D 05 6A-02 6A 07 9A 00 00 00 00 ..RF..h3.j.j.....	
002130	83 C4 OC BB 00 00 BA 00-00 52 50 1E 68, 93 05 6A ..RF..h..j	
002140	02 6A 08 9A 00 00 00 00-83 C4 OC 2B F6 BD 46 F6 ..j.....+..F.	
002150	16 50 8D 46 FA 16 50 8D-46 FE 16 50 9A 00 00 00 ..F.F..P.F..P....	
002160	00 83 C4 OC 89 46 F4 FF-76 F6 9A 00 00 00 00 83 ..F..V.....	
002170	C4 02 F6 46 F6 02 74 06-BE 01 00 E9 A9 00 B3 7E ..F..t.....	
002180	FE 00 75 09 B3 7E FA 00-75 03 E9 9A 00 F6 46 F6 ..u..~..u....F.	
002190	01 74 47 BE 06 04 00 26-A1 04 00 03 46 FE 3D 01 ..tG....&....F.=.	
0021A0	00 7D 03 BB 01 00 3D 2B-00 7E 03 BB 2B 00 BE 06 ..3....=+..~..+..	
0021B0	04 00 26 A3 04 00 26 A1-06 00 03 46 FA 3D 01 00 ..&...&...F.=..	
0021C0	7D 03 BB 01 00 3D 3C 00-7E 03 BB 3C 00 BE 06 04 ..3....=<..~..<..	
0021D0	00 26 A3 06 00 BF 01 00-EB 3A BE 06 04 00 26 A1 ..&.....t....&..	
0021E0	00 00 03 46 FE 79 02 2B-C0 3D FF 01 7E 03 BB FF ..F.y.+.=..~..	
0021F0	01 BE 06 04 00 26 A3 00-00 26 A1 02 00 03 46 FA ..&...&...&...F.	
002200	79 02 2B C0 3D DF 01 7E-03 BB DF 01 BE 06 04 00 y.+.=..~..	
002210	26 A3 02 00 6A 01 6A 02-BB 00 00 BA 00 00 52 50 &...j.j.....RF	
002220	0E EB 00 00 B3 C4 08 0B-F6 75 03 E9 1F FF 89 7E ..V.....u.....	
002230	FC 89 76 FB 9A 00 00 00-00 BE 06 02 00 26 C7 06 ..&.....t..	
002240	00 00 00 00 26 C7 06 02-00 00 00 OB FF 74 3A BE ..&....+	
002250	06 04 00 26 A1 04 00 99-2B C2 D1 FB BE 06 02 00 ..&....&....+	
002260	26 A3 04 00 2E 06 04 00-26 A1 06 00 99 2B C2 D1 ..&....&....&..	
002270	F8 BE 06 02 00 26 A3 06-00 26 A1 04 00 26 A3 08 ..&....&....&..	

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002280 00 26 A1 06 00 26 A3 0A-00 BB 00 00 BA 00 J0 52 &...&.....R  
 002290 50 9A 00 00 00 00 B3 C4-04 9A 00 00 00 00 1F 5E P.....^  
 0022A0 5F C9 CB 90 CB 18 00 00-57 56 1E BB 00 00 8E DB F.....WV.  
 0022B0 C7 46 F2 05 00 BB 00 00-BA 00 00 52 50 9A 00 00 F.....RF.  
 0022C0 00 00 B3 C4 04 BB 00 00-BA 00 00 52 50 1E 68 A7 F.....RF.h.  
 0022D0 05 6A 01 6A 00 9A 00 00-00 00 83 C4 OC BB 00 00 j.j.....RF.  
 0022E0 BA 00 00 52 50 9A 00 00-00 00 83 C4 04 BB 00 00 RF.h..j.j.  
 0022F0 BA 00 00 52 50 1E 68 F0-05 6A 02 6A 01 9A 00 00 RF.h..j.j.  
 002300 00 00 B3 C4 OC BB 00 00-BA 00 00 52 50 1E 68 0B RF.h..j.j.  
 002310 06 6A 02 6A 03 9A 00 00-00 00 83 C4 OC BB 00 00 j.j.....RF.h..j.j.  
 002320 BA 00 00 52 50 1E 68 24-06 6A 02 6A 04 9A 00 00 RF.h..j.j.  
 002330 00 00 B3 C4 OC BB 00 00-BA 00 00 52 50 1E 68 39 RF.h..j.j.  
 002340 06 6A 02 6A 05 9A 00 00-00 00 B3 C4 OC BB 00 00 j.j.....RF.h..j.j.  
 002350 BA 00 00 52 50 1E 68 4B-06 6A 02 6A 07 9A 00 00 RF.ha.  
 002360 00 00 B3 C4 OC BB 00 00-BA 00 00 52 50 1E 68 61 j.j.....VH..  
 002370 06 6A 02 6A 08 9A 00 00-00 00 83 C4 OC BE 06 04 j.j.....VH..  
 002380 00 26 A1 00 00 D4 9C 73-01 C6 C5 56 48 C6 C1 9C VVA....V..V..  
 002390 CE BB 56 41 C6 B1 9D CA-AB 56 17 C6 AB 56 17 CE VVA....V..V..  
 0023A0 A0 56 41 C6 99 9D CA 93-56 17 C6 90 56 17 CE BB VA....V..xV..xV..  
 0023B0 56 41 C6 81 9D CA 7B 5e-17 C6 78 56 17 CE 70 56 A.i..cv..V..xVA  
 0023C0 41 C6 69 9D CA 83 56 17-C6 60 56 17 CE 58 56 41 Q..KV..HV..xVA.  
 0023D0 C6 51 9D CA 4B 5e 17 C6-48 56 17 CE 40 56 41 C6 9..3V..0V..V..#  
 0023E0 39 9D CA 33 56 17 C6 30-56 17 CE 28 56 19 CA 23 V.. V..VA.....V  
 0023F0 56 17 C6 20 56 17 CE 18-56 41 C6 11 9D CA 0B 56 "1..V".."V..V".."V  
 002400 22 C6 08 56 22 CE 00 5e-19 C9 FB 56 22 C5 FB 56 ".....VN..V..V".."V  
 002410 22 C9 EE 9D CD DC 56 4E-CD D4 56 19 C9 CF 56 22 ..V".."V..V8..V8..  
 002420 C5 CC 55 22 C5 C9 56 38-C5 C5 56 38 C5 C1 56 38 ..V8..V8.....VH.  
 002430 C5 BD 56 38 C5 B9 56 38-C5 B5 9C C5 AC 56 48 C5 ..V8.....VH...  
 002440 A8 9C C5 A4 56 38 C5 A0-9C C5 97 56 48 C5 93 9C ..V8..V8..>..WVT.  
 002450 C5 B9 56 38 C5 82 56 38-C5 7D 9C CD 77 56 54 88 dV\_..VH..[VH.TVH..  
 002460 64 56 5F C9 5E 56 48 C5-5B 56 48 C5 54 56 48 C5 P..=VH..9VH.S..V  
 002470 50 9C C5 3D 56 48 C5 39-56 48 C5 35 9C C5 22 56 H.....VH.....VH.  
 002480 48 C5 1E 9C C5 15 56 48-C5 11 9C C4 FA 56 48 C4 ..VH.....VH.....V  
 002490 F6 56 48 C4 F2 9C C4 DB-56 48 C4 D7 9C CC AD 56 R..V2..VA...yV.  
 0024A0 52 CC 9F 56 32 CC 86 56-41 C4 7F 9D C8 79 56 17 ..VV..nVA.g..aV..  
 0024B0 C4 76 56 17 CC 6E 56 41-C4 67 9D C8 61 56 17 C4 ..V..VVA.O..IV..F  
 0024C0 5E 56 17 CC 56 56 41 C4-4F 9D C8 49 56 17 C4 46 V..>VA.7..1V...V  
 0024D0 56 17 CC 3E 56 41 C4 37-9D C8 31 56 17 C4 2E 56 ..&VA.....V..V.  
 0024E0 17 CC 26 56 41 C4 1F 9D-C8 19 56 17 C4 16 56 17 ..VA.....V.....  
 0024F0 CC 0E 56 41 C4 07 9D C8-01 56 17 F1 A0 OB 03 01 ..F.&....F.&...  
 002500 9D OF 89 46 F0 26 A1 02-00 89 46 EE Z6 A1 04 00 00 F.....F..F.&...&  
 002510 26 F7 2E 08 00 03 46 F0-89 46 EA 26 A1 04 00 99 2B ..F..F.&...+  
 002520 F7 2E 0A 00 03 46 EE 89-46 EB 26 A1 04 00 99 2B C2 ..F.&...+  
 002530 C2 D1 F8 05 05 00 89 46-FA 26 A1 06 00 99 2B C2 ..F.....F..&  
 002540 D1 F8 05 05 00 89 46 FB-BE 06 02 00 8B 46 FA 26 9...~.&...F.&9.  
 002550 39 06 08 00 7E 04 26 A3-08 00 BB 46 FB 26 39 06

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002560 0A 00 7E 04 26 A3 0A 00-BB 46 F0 26 39 06 00 00 ..~.&...F.&9...  
 002570 7E 1E BB 46 EA 26 39 06-00 00 7D 14 BB 46 EE 26 ~..F.&9...>..F.&  
 002580 39 06 02 00 7E 0A BB 46-E8 26 39 06 02 00 7C 3E 9...~..F.&9...>  
 002590 BE 06 04 00 26 A1 04 00-BB C8 D1 E0 D1 E0 03 C1 ....&.....  
 0025A0 BE 06 02 00 26 03 06 04-00 03 46 F0 26 A3 00 00 ....&....F.&...  
 0025B0 BE 06 04 00 26 A1 06 00-BB C8 D1 E0 03 C1 BE 06 ....&.....  
 0025C0 02 00 26 03 06 06-00 03-46 EE 26 A3 02 00 6A 02 ..&....F.&...j.  
 0025D0 6A 02 9A 00 00 00 00 00 83-C4 04 68 FF 01 68 FF 01 j.....h.h..  
 0025E0 6A 00 6A 00 9A 00 00 00-00 83 C4 08 68 FF 00 6A j.j.....h.j  
 0025F0 00 6A 00 6A 02 9A 00 00-00 00 83 C4 08 6A 02 j.j.j.....j.  
 002600 6A 00 6A 00 6A 03 9A 00-00 00 00 83 C4 08 6A 02 j.....RP.....  
 002610 6A 02 BB 00 00 BA 00 00-52 50 0E EB 00 00 83 C4 j.....^..F..P.F..P  
 002620 08 2B F6 BB 7E EB 8D 46-F4 16 50 8D 46 FC 16 50 .+..^..F..P.F..P  
 002630 BD 46 FE 16 50 9A 00 00-00 00 83 C4 0C 89 46 EC .F..P.....F.  
 002640 FF 76 F4 9A 00 00 00 00-83 C4 02 F6 46 F4 02 74 .v.....F..t  
 002650 06 BE 01 00 E9 BF 00 83-7E FE 00 75 09 83 7E FC .....^..u.^.  
 002660 00 75 03 E9 B0 00 6A 02-6A 02 B8 00 00 BA 00 00 .u...i.j.....  
 002670 52 50 0E EB 00 00 83 C4-08 F6 46 F4 01 74 44 BE RP.....F..td.  
 002680 06 02 00 26 A1 08 00 2B-46 FE 3D 02 00 7D 03 B8 ...&...+F.=..3...  
 002690 02 00 3B 46 FA 7E 03 BB-46 FA BE 06 02 00 26 A3 ...;F.^..F.....&  
 0026A0 08 00 3B A1 0A 00 2B 46-FC 3D 02 00 7D 03 B8 02 ...&...+F.=..3...  
 0026B0 00 3B 46 FB 7E 03 BB 46-FB BE 06 02 00 26 A3 0A ;;F.^..F.....&  
 0026C0 00 EB 40 BE 06 02 00 26-A1 00 00 03 46 FE 3B 46 ..;F.;F.^..F...  
 0026D0 F0 7D 03 BB 46 F0 3B 46-EA 7E 03 BB 46 EA BE 06 ..;F.;F.^..F...  
 0026E0 02 00 26 A3 00 00 26 A1-02 00 03 46 FC 3B 46 EE ..&...&...F.;F.  
 0026F0 7D 03 BB 46 EE 3B C7 7E-02 BB C7 BE 06 02 00 26 3..F.;^.....&  
 002700 A3 02 00 6A 02 6A 02 BB-00 00 BA 00 00 52 50 0E ...j.j.....RP.  
 002710 E8 00 00 83 C4 08 0B F6-75 03 E9 09 FF 89 76 F6 .....u.....v.  
 002720 9A 00 00 00 00 6A 02 6A-02 BB 00 00 BA 00 00 52 .....j.j.....R  
 002730 50 0E EB 00 00 83 C4 08-6A 00 6A 00 6A 00 6A 02 P.....j.j.j.j.j.  
 002740 9A 00 00 00 00 83 C4 08-6A 00 6A 00 6A 00 6A 03 .....j.j.j.j.j.  
 002750 9A 00 00 00 00 83 C4 08-BE 06 02 00 26 A1 00 00 .....&...  
 002760 2B 46 F0 99 BE 06 04 00-26 F7 3E 04 00 BE 06 02 +F.....&.>....  
 002770 00 26 89 16 04 00 26 A1-02 00 2B 46 EE 99 BE 06 ..&.>.....&...  
 002780 04 00 26 F7 3E 06 00 BE-06 02 00 26 89 16 06 00 ..&.>.....&...  
 002790 BB 00 00 BA 00 00 52 50-9A 00 00 00 00 83 C4 04 .....^.....  
 0027A0 9A 00 00 00 00 1F 5E 5F-C9 CB 90 C8 00 00 00 1E .....V.....  
 0027B0 BB 00 00 BE DB FF 76 0C-9A 00 00 00 00 83 C4 02 .....V.....  
 0027C0 6A 02 9A 00 00 00 00 83-C4 02 C4 5E 06 26 FF 77 j.....^..&W  
 0027D0 02 26 FF 37 9A 00 00 00-00 83 C4 04 C4 5E 06 26 ..&7.....^..&  
 0027E0 FF 77 0A 26 FF 77 08 9A-00 00 00 00 83 C4 04 C4 ..w.&w.....  
 0027F0 5E 06 26 BB 47 0A 48 50-26 BB 47 0B 48 50 9A 00 ^..&.G.HP%G.HP..  
 002800 00 00 00 83 C4 04 1F C9-CB 6F 9C 3B 01 CE FD 56 .....o.B...V  
 002810 45 CE E6 56 45 CE D3 56-42 CE C1 56 40 CE B7 56 E..VE..VB..V@..V  
 002820 3E CA AF 9D CE 9F 56 4E-CE 97 56 19 CA 92 56 22 >....VN..V...V  
 002830 C6 BF 56 22 C6 8C 56 3B-C6 87 9C C6 83 56 48 C6 ..V"..VB....VH.

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002840	7E	9C	C6	76	56	38	C6	72-56	38	C6	6D	9C	C6	69	56	~..vvB..vVB..m..iv
002850	48	C6	64	9C	C6	5C	56	38-C6	58	9C	CE	4F	56	35	CE	H.d..vVB..x..0V5.
002860	3F	56	35	86	31	56	24	CA-2B	56	38	C6	28	56	38	CE	?V5..1V\$..+V8..(V8..
002870	1F	56	54	86	0F	56	24	CA-09	56	38	C6	06	56	38	C5	.VT..V\$..V8..V8..
002880	FF	56	38	C5	FB	9C	C5	E6-56	38	C5	E2	56	38	C5	DE	.VB.....VB..VB..
002890	9C	C5	C7	56	38	C5	C3	9C-C5	BD	56	38	C5	B9	9C	C5	..VB.....VB....
0028A0	A2	56	38	C5	9E	56	38	C5-9A	9C	C5	B3	56	38	C5	7F	.V8..V8.....V8..
0028B0	9C	85	72	56	24	C9	6C	56-38	C5	69	56	38	CD	42	56	..PV\$..1V8..1V8..BV
0028C0	52	CD	34	56	32	85	1A	56-24	C9	14	56	38	C5	11	56	R..4V2..V\$..V8..V
0028D0	38	CD	05	56	35	CC	F4	56-35	CC	E3	56	20	CC	D1	56	..V8..V8.....VH
0028E0	1D	C4	CA	56	38	C4	C3	56-38	C4	BE	9C	C4	B4	56	48	....V8..V8.....
0028F0	C4	B0	9C	C4	AC	56	38	C4-A5	56	38	C4	A0	9C	C4	94	....V8..V8.....
002900	56	48	C4	90	9C	C4	BA	56-38	C4	80	56	38	C4	70	56	VH.....VB..VB..VV
002910	38	C4	6C	56	38	C4	64	56-38	C4	5E	56	38	C4	56	56	8..1V8..dVB..VVS..VV
002920	38	C4	50	56	38	C4	48	9C-C4	39	56	48	C4	2A	56	48	8..PVS..H..SVH..*VH
002930	C4	20	56	48	C4	1B	56	48-C4	11	56	48	C4	0C	56	48	.VH..VH..VH..VH
002940	C4	05	56	48	0D	A0	06	00-03	0C	00	00	00	4B	9C	05	..VH.....R..
002950	00	CB	00	54	05	3E	A0	BB-02	01	A4	12	CB	06	00	00	..T.>.....
002960	57	56	1E	BB	00	00	BE	DB-68	00	03	68	00	DO	9A	00	WV.....n..h..
002970	00	00	00	83	C4	04	6A	00-6A	01	9A	00	00	00	00	83	....j..j.....
002980	C4	04	6A	01	6A	01	9A	00-00	00	00	83	C4	04	2B	F5	....&.....+
002990	BB	C6	BE	06	0C	00	26	88-B4	00	00	BB	FF	00	2B	C6	....&.....+
0029A0	BB	F8	26	8A	B4	00	00	26-BB	85	00	04	BB	C6	99	2B	....F.&....&..
0029B0	C2	D1	F8	88	46	FA	26	88-B4	00	01	26	88	85	00	03	....F.&....F..
0029C0	2C	B0	26	88	B4	00	02	26-BB	85	00	05	46	81	FE	00	,&....&....F..
0029D0	01	7C	BD	89	76	FE	6A	00-6A	02	9A	00	00	00	00	83	.i..v..j..j.....
0029E0	C4	04	6A	01	6A	02	6A	FF-6A	00	9A	00	00	00	00	83	...j..j..j..j.....
0029F0	C4	08	6A	01	6A	02	6A	FF-6A	00	9A	00	00	00	00	83	..j..j..j..j.....
002A00	C4	08	68	FF	00	9A	00	00-00	00	83	C4	02	68	00	02	..h.....h..
002A10	68	00	02	6A	00	6A	00	9A-00	00	00	00	83	C4	08	6A	h..j..j.....j
002A20	00	9A	00	00	00	00	83	C4-02	BE	06	06	00	26	BB	1E	....&..
002A30	00	00	8A	B7	40	01	2A	E4-50	BE	06	08	00	26	BB	1E	....@..P....&..
002A40	00	00	8A	B7	40	01	50	8E-06	0A	00	26	BB	1E	00	00	....@..Pj.....j
002A50	BA	B7	40	01	50	6A	01	9A-00	00	00	00	83	C4	08	6A	..@..Pj.....j
002A60	00	6A	04	9A	00	00	00	00-83	C4	04	6A	00	6A	04	9A	j.....j..j.....
002A70	00	00	00	00	83	C4	04	6A-00	6A	05	9A	00	00	00	00	....j..j.....
002A80	83	C4	04	6A	00	6A	05	9A-00	00	00	00	83	C4	04	8E	....j..j.....
002A90	06	04	00	26	B3	3E	00	00-00	75	07	26	C7	06	00	00	..>..u..&....m
002AA0	47	00	26	B3	3E	02	00	00-75	07	26	C7	06	02	00	6D	G..&..>..u..&....m
002AB0	00	26	B3	3E	04	00	00	75-07	26	C7	06	04	00	20	00	&..>..u..&....&..&
002AC0	26	B3	3E	06	00	00	75	07-26	C7	06	06	00	26	00	26	>..u..&....&..
002AD0	83	3E	06	00	00	75	07	26-C7	06	08	00	0C	00	26	B3	>..u..&....j..j
002AE0	3E	0A	00	00	75	07	26	C7-06	0A	00	08	00	6A	01	6A	....RP.....
002AF0	02	BB	00	00	BA	00	00	52-50	0E	E8	00	00	B3	C4	0B	....&....&....
002B00	BE	06	02	00	26	C7	06	00-00	00	00	26	C7	06	02	00	....&....&....
002B10	00	00	26	B3	3E	04	00	00-75	15	BE	06	04	00	26	A1	..&..>..u....&..

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002B20	04 00 99 2B C2 D1 FB BE-06 02 00 26 A3 04 00 26	...+.....&...&
002B30	B3 3E 06 00 00 75 15 BE-06 04 00 26 A1 06 00 99	.>...u....&....
002B40	2B C2 D1 FB 8E 06 02 00-26 A3 06 00 26 B3 3E 08	+.....&...&.>.
002B50	00 00 75 15 BE 06 04 00-26 A1 04 00 99 2B C2 D1	..u....&...+..
002B60	FB 8E 06 02 00 26 A3 08-00 26 B3 3E 0A 00 00 75	.....&...&.>...u
002B70	15 BE 06 04 00 26 A1 06-00 99 2B C2 D1 FB 8E 06	.....&...+.....
002B80	02 00 26 A3 0A 00 1F 5E-5F C9 CB 90 C8 00 00 00	...&....^.....
002B90	1E B8 00 00 BE DB FF 76-0A FF 76 0C 9A 00 00 00	.....&...v....
002BA0	00 B3 C4 04 C4 5E 06 26-FF 77 0A 26 FF 77 08 26	.....&..w..&..w..&
002BB0	FF 77 06 26 FF 77 04 26-FF 77 02 26 FF 37 FF 76	..w..&..w..&..w..&..7..v
002BC0	0A 6A 01 9A 00 00 00 00-83 C4 10 1F C9 CB C8 00	..j.....
002BD0	00 00 1E B8 00 00 BE DB-FF 76 0A FF 76 0C 9A 00	.....&..v....
002BE0	00 00 00 85 C4 04 C4 5E-06 26 FF 77 0A 26 FF 77	.....&..w..&..w..&..w
002BF0	08 26 FF 77 06 26 FF 77-04 26 FF 77 02 26 FF 37	..&..w..&..w..&..w..&..7
002C00	FF 76 0A 6A 00 9A 00 00-00 00 83 C4 10 1F C9 CB	.v..j.....
002C10	D3 9C 21 01 CE AA 56 02-CE 83 56 1D CA 78 9D CE	..!...v...v...x..
002C20	68 56 02 CE 41 56 1D CA-36 9D C6 28 56 38 C6 24	hV...AV...6... (VB..\$
002C30	9C C6 1B 56 48 C6 17 9C-C6 10 56 38 C6 0E 56 38	..VH....VB..VB
002C40	C6 07 9C C5 FE 56 48 C5-FA 9C C5 F3 56 38 C5 EE	....VH....VB..
002C50	56 38 C5 EA 9C C5 E1 56-48 C5 DD 9C C5 D6 56 38	VB.....VH.....VB
002C60	C5 D1 56 38 C5 CD 9C C5-C4 56 48 C5 C9 9C C5 B9	..VB.....VH.....
002C70	56 38 C5 B2 56 38 C5 AB-56 38 C5 A6 9C 85 9F 56	VB..VB..VB....V
002C80	59 C9 99 56 48 C5 96 56-48 C5 8D 56 48 C5 85 56	Y..VH..VH..VH..V
002C90	48 C5 7E 56 48 C5 76 56-48 C5 6F 56 48 C5 67 56	H..VH..VH..VH..VH..gV
002CA0	48 C5 60 56 48 C5 58 56-48 C5 51 56 48 C5 49 56	H..VH..XVH..GVH..IV
002CB0	48 C5 42 56 48 C5 3A 56-48 C5 35 9C CD 2C 56 18	H..BVH..VH..5...V.
002CC0	CD 20 56 18 CD 14 56 18-CD 08 56 18 CC FC 56 35	. V...V...V...V...V5
002CD0	C4 F6 9D C4 F2 56 04 C4-ED 9C C4 E8 9D C4 E4 56	....V.....V
002CE0	07 C4 DF 9C C4 DB 9D C4-D4 56 0A C4 CF 9C CC C6	.....V.....
002CF0	56 1A CC BC 56 16 CC AA-56 56 CC 9F 56 31 CC 8F	V...V...VV..V1..
002DD0	56 31 CC 7F 56 26 C4 6E-54 05 C4 69 54 05 C4 62	V1..V&.NT..iT..b
002D10	54 05 C4 5D 54 05 C4 4E-54 05 C4 49 54 05 C4 3D	T..JT..NT..IT..=
002D20	54 05 C4 38 9C CC 2B 56-34 CC 1F 56 33 CC 13 56	T..B..+V4..V3..V
002D30	4D C8 08 9D B7 8A 02 00-00 74	M.....t
002D30	4D C8 08 9D B7 8A 02 00-00 74	M.....t

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```

0000000 80 0B 00 09 62 6B 72 6D-5F 39 37 2E 63 60 88 07 ....bkrm_97.c'..
0000010 00 00 00 4D 53 20 43 6E-88 09 00 00 9F 4C 4C 49 ...MS Cn.....LLI
0000020 42 43 45 25 88 06 00 00-9D 32 6C 4F E8 88 06 00 BCE%....210...
0000030 00 A1 01 43 56 37 96 35-00 00 06 44 47 52 4F 55 ...CV7.5...DGRDU
0000040 50 0C 42 4B 52 4D 5F 39-37 5F 54 45 58 54 04 43 P_BKRM_97_TEXT.C
0000050 4F 44 45 05 5F 44 41 54-41 04 44 41 54 41 05 43 ODE._DATA.DATA.C
0000060 4F 4E 53 54 04 5F 42 53-53 03 42 53 53 36 98 07 ONST._BS6.BS6A...
0000070 00 48 36 0B 03 04 01 D0-98 07 00 48 96 01 05 06 .H6.....H....
0000080 01 76 98 07 00 48 26 00-07 07 01 E4 98 07 00 48 .v...HE.....H
0000090 00 00 08 09 01 07 9A 08-00 02 FF 03 FF 04 FF 02 .....@.E.
00000A0 56 -9C 0D 00 00 03 01 02-02 01 03 04 40 01 45 01 V....._fitused..
00000B0 C0 8C 23 02 09 5F 5F 66-6C 74 75 73 65 64 00 06 FISRQQ..FISRQQ..
00000C0 46 4A 53 52 51 51 00 06-46 49 53 52 51 51 00 06 FIERQQ..FIDRQQ..
00000D0 46 49 45 52 51 51 00 06-46 49 44 52 51 51 00 06 FIWRQQ.._acrtus
00000E0 46 49 57 52 51 51 00 0A-5F 5F 61 63 72 74 75 73 ed.._scroll.._ge
00000F0 65 64 00 07 5F 73 63 72-6F 6C 6C 00 13 5F 67 65 t_experiment_key
000100 74 5F 65 78 70 65 72 69-6D 65 6E 74 5F 6B 65 79 .._im_softinit..
000110 00 0C 5F 69 6D 5F 73 6F-66 74 67 6E 67 74 00 08 .._im_average.._im
000120 5F 69 6D 5F 61 76 65 72-61 67 65 00 08 5F 69 6D _sync.._frame.._
000130 5F 73 79 6E 63 00 06 5F-68 72 61 6D 65 00 08 5F _clip_subtract.._
000140 63 6C 69 70 5F 73 75 62-74 72 61 63 74 00 11 5F remove_bar_graph
000150 72 65 6D 6F 76 65 5F 62-61 72 5F 67 72 61 70 68 .._errmsg.._bkrm
000160 00 07 5F 65 72 72 6D 73-67 00 08 5F 62 6B 72 6D _97.._im_video..
000170 5F 39 37 00 09 5F 69 6D-5F 76 69 64 65 6F 00 08 _im_outmode.._cl
000180 5F 69 6D 5F 6F 75 74 6D-6F 64 65 00 13 5F 63 6C ear_message_area
000190 65 61 72 5F 6D 65 73 73-61 67 65 5F 61 72 65 61 .._im_outpath.._
0001A0 00 0B 5F 69 6D 5F 6F 75-74 70 61 74 68 00 0A 5F im_oemode.._clos
0001B0 69 6D 5F 6F 70 6D 6F 64-65 00 15 5F 63 6C 6F 73 e_standards_file
0001C0 65 5F 73 74 61 6E 64 61-72 64 73 5F 66 67 6C 65 .._im_cpuwin.._g
0001D0 00 0A 5F 69 6D 5F 63 70-75 77 69 6E 00 0E 5F 67 et_standards.._m
0001E0 65 74 5F 73 74 61 6E 64-61 72 64 73 00 0B 5F 6D essage_on.._draw
0001F0 65 73 73 61 67 65 5F 6F-6E 00 0C 5F 64 72 61 77 _border.._xbkrm_
000200 5F 62 6F 72 64 65 72 00-09 5F 78 62 6B 72 6D 5F 97.._set_message
000210 39 37 00 0C 5F 73 65 74-5F 6D 65 73 73 61 67 65 .._im_interimage
000220 00 0E 5F 69 6D 5F 69 6E-74 65 72 69 6D 61 67 65 .._set_screen_t
000230 00 11 5F 73 65 74 5F 73-63 72 65 65 6E 5F 74 69 tle.._ftol.._ze
000240 74 6C 65 00 06 5F 5F 66-74 6F 6C 00 05 5F 7A 65 ro.._one.._two..
000250 72 6F 00 04 5F 6F 6E 65-00 04 5F 74 77 6F 00 06 _three.._message
000260 5F 74 6B 72 65 65 00 0C-5F 6D 65 73 73 61 67 65 _off.._all.._spr
000270 5F 6F 66 66 00 04 5F 61-6C 6C 00 08 5F 73 70 72 intf.._draw_bar_
000280 69 6E 74 66 00 0F 5F 64-72 61 77 5F 62 61 72 5F graph.._chan.._g
000290 67 72 61 70 68 00 05 5F-63 68 61 6E 00 08 5F 67 r_chan.._set_bar_
0002A0 72 5F 63 68 61 6E 00 0F-5F 73 65 74 5F 62 61 72 _slider.._get_st
0002B0 5F 73 6C 69 64 65 72 00-1C 5F 67 65 74 5F 73 74 andard_grid_stru
0002C0 61 6E 64 61 72 64 5F 67-72 69 64 5F 73 74 72 75 cture.U....._cl
0002D0 63 74 75 72 65 00 55 90-2E 00 00 01 0E 5F 63 6C

```

MODULE 2

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0002E0	69 70 5F 73 75 62 74 72-61 63 74 00 00 00-08 5F	ip_subtract....-
0002F0	62 6B 72 6D 5F 39 37 16-0B 00 09 5F 78 62 6B 72	bkrm_97...._xbkr
000300	6D 5F 39 37 DE 00 00 29-88 04 00 00 A2 01 D1 A0	m_97....).....
000310	53 01 02 07 00 42 69 6F-6C 6F 67 69 63 61 6C 20	S....Biological
000320	56 69 73 69 6F 6E 20 20-42 4B 52 4D 5F 39 37 20	Vision BKRM_97
000330	42 61 63 6B 67 72 6F 75-6E 64 20 52 65 6D 6F 76	Background Remov
000340	61 6C 00 43 61 6E 27 74-20 61 63 65 73 73 20	al.Can't access
000350	73 74 61 6E 64 61 72 64-73 20 69 6E 66 6F 72 6D	standards inform
000360	61 74 69 6F 6E 20 66 6F-72 20 6B 65 79 20 25 6C	ation for key %1
000370	61 74 69 6F 6E 20 66 6F-72 20 6B 65 79 20 25 6C	d.Using default
000380	64 00 55 73 69 6E 57 20-64 65 66 61 75 6C 74 20	grid structure d
000390	67 72 69 64 20 73 74 72 75 63 74 75 72 65 20 64	ata.Using default
0003A0	61 74 61 00 55 73 69 6E-67 20 64 65 66 61 75 6C	grid structure
0003B0	74 20 67 72 69 64 20 73-74 72 75 63 74 75 72 65	data.Setting up
0003C0	20 64 61 74 61 00 53 65-74 74 69 6E 67 20 75 70	for background
0003D0	20 66 6F 72 20 62 61 63-6B 67 72 6F 75 6E 64 20	removal....Radius
0003E0	72 65 6D 6F 76 61 6C 2E-2E 2E 00 52 61 64 69 75	= %d Xincremen
0003F0	73 20 3D 20 25 64 20 58-69 6E 63 72 65 6D 65 6E	t = %d Yincremen
000400	74 20 3D 20 25 64 20 59-69 6E 63 72 65 6D 65 6E	t = %d Removing
000410	62 61 63 6B 67 72 6F 75-6E 64 2E 2E 2E 00 42 61	background....Ba
000420	63 6B 67 72 6F 75 6E 64-20 72 65 6D 6F 76 61 6C	ckground removal
000430	20 70 65 72 63 65 6E 74-20 63 6F 6D 70 6C 65 74	percent complet
000440	65 00 43 6C 65 61 6E 69-6E 67 20 75 70 20 62 61	e.Cleaning up ba
000450	63 6B 67 72 6F 75 6E 64-20 72 65 6D 6F 76 61 6C	ckground removal
000460	2E 2E 2E 00 49 A0 07 00-02 00 00 64 00 32 C1 A0	....I.....d.Z..
000470	07 00 02 04 00 96 B4 C8-41 A0 44 00 02 56 01 43	.....A.D...V.C
000480	6F 70 79 72 69 67 68 74-20 28 63 29 20 31 39 38	opyright (c) 198
000490	39 2C 20 42 69 6F 6C 6F-67 69 63 61 6C 20 56 69	9, Biological Vi
0004A0	73 69 6F 6E 20 49 6E 63-2E 20 20 41 6C 6C 20 72	sion Inc. All r
0004B0	69 67 5B 74 73 20 72 65-73 65 72 76 65 64 00 70	ights reserved.p
0004C0	A0 06 00 03 00 00 00 00-57 9C 05 00 C8 00 56 22	.....W.....V"
0004D0	1F A0 E2 00 01 00 00 CB-18 00 00 57 56 1E BB 00	.....WV....
0004E0	00 BE D8 8E 06 00 00 26-FF 36 00 00 6A 01 9A 00	.....&.6..j...
0004F0	00 00 00 B3 C4 04 6A 01-9A 00 00 00 00 83 C4 02	.....j.....
000500	6A 00 6A 00 6A FF 6A 01-9A 00 00 00 00 83 C4 08	j.j.j.j.....
000510	6A 00 6A 00 6A FF 6A 01-9A 00 00 00 00 83 C4 08	j.j.j.j.....
000520	C7 46 FA 00 D0 6A 01 9A-00 00 00 00 83 C4 02 6A	.F...j.....j
000530	04 6A 00 9A 00 00 00 00-83 C4 04 2B F6 89 76 EB	.j.....+..v.
000540	BB C6 C1 FB 06 89 46 EE-50 9A 00 00 00 00 83 C4	.....F.P.....
000550	02 BB 46 EB 89 46 FB BB-56 FA 40 89 46 F2 89 56	..F..F..V.@.F..V
000560	F4 BF 00 02 89 7E EA C4-5E F8 26 BA 07 2A E4 89	.....^..^..&...*
000570	46 FC C4 5E F2 26 BA 07-89 46 F6 2B 46 FC BB CB	F..^.&..F.+F...
000580	0B C9 7D 02 2B C9 8B C1-26 8B 07 B3 46 FB 02 83	..3.+...&...F...
000590	46 F2 02 FF 4E EA 75 CF-89 4E FO 80 46 E9 04 46	F...N.u..N..F..F
0005A0	B1 FE DF 01 7E 9A 6A 00-9A 00 00 00 00 83 C4 02	....~.j.....
0005B0	1F 5E 5F C9 CB 09 9C 2B-00 CC D2 56 13 CC 73 56	.^.....+...V..sv

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	CC	SD	56	16	CC	51	56-13	CC	42	56	15	CC	52	56	..JV..	QV..	BV..	2V		
0005C0	18	CC	5D	56	16	CC	51	56-13	CC	42	56	15	CC	52	56	.."	V..	V..	V"....	
0005D0	15	CC	22	56	13	CC	18	56-12	C4	13	56	22	C4	0E	9C	.....(	.....	.....	.....?	
0005E0	C8	08	9D	BB	A0	28	00	03-02	00	00	00	00	00	00	E0	3F	.....@	.....	.....	.....?
0005F0	00	00	00	00	00	00	00	40-00	00	00	00	00	00	00	BC	9C	.....@	.....	.....	.....
000600	00	00	00	00	00	00	00	08	40-00	00	00	00	00	00	BE	9C	..V\$..	V&..	V#..	.....
000610	19	00	CB	22	56	24	CB	20-56	26	CB	1E	56	23	CB	04	V*..	V)..	V!P..	.....	
000620	56	2A	CB	02	56	29	CB	00-56	21	50	A0	B7	03	01	DE	.....	WV..	.....	.....	
000630	00	CB	AE	27	00	57	56	1E-B8	09	00	BE	DB	BE	06	02	.....	.....	.....	.....	
000640	00	26	A1	00	00	BE	06	04-00	26	A3	00	00	1E	68	07	.....	.....	.....	h..	
000650	00	26	A1	00	00	BE	06	06-00	26	A3	00	00	1E	68	00	.....	h..	h..	h..	
000660	00	9A	00	00	00	00	83	C4-04	58	00	03	68	00	00	RA	.....	.....	.....	h..	
000670	00	00	00	00	00	83	C4	04	BE-04	04	00	26	FF	36	00	00	.....	.....	.....	.....
000680	6A	02	9A	00	00	00	00	B3-C4	04	BE	06	00	00	26	FF	J.....	.....	.....	.....	
000690	36	00	00	6A	00	9A	00	00-00	00	83	C4	04	BE	06	04	6.....	.....	.....	.....	
0006A0	00	26	FF	36	00	00	BE	06-00	00	26	FF	36	00	00	9A	.....	.....	.....	t..	
0006B0	00	00	00	00	00	83	C4	04	83-7E	0A	00	74	03	E9	B5	01	.....	.....	.....	.....
0006C0	9A	00	00	00	00	89	B6	70-D8	89	96	72	FB	0B	D2	7D	.....	p...r..	.....	.....	
0006D0	0A	2B	C0	69	B6	72	D8	87-86	70	D8	FF	B6	72	D8	FF	.....	r...p..	.....	.....	
0006E0	B6	70	D8	9A	00	00	00	00-83	C4	04	B9	86	7A	D8	89	.....	.....	.....	Z..	
0006F0	96	7C	D8	0B	D0	75	1C	FF-B6	72	D8	FF	B6	70	D8	1E	.....	u...r..	.....	.....	
000700	68	35	00	9A	00	00	00	00-83	C4	08	2B	C0	1F	SE	5F	h5.....	.....	.....	.....	
000710	C9	CB	90	8D	46	FA	16	50-8D	B6	92	D8	16	50	8D	B6	....F..	F...F..	.....	.....	
000720	5E	DB	16	50	BD	B6	68	D8-16	50	BD	B6	86	D8	16	50	.....	P..h..	P....P..	.....	
000730	BD	88	90	DB	16	50	BD	B6-84	DB	16	50	BD	86	8E	DB	.....	P..n..	P..x..	P..	
000740	16	50	BD	86	6E	DB	16	50-BD	B6	78	D8	16	50	9A	00	.....	(..u..	.....	.....	
000750	00	00	00	83	C4	28	0B	C0-75	1D	BB	86	7A	D8	0B	B6	.....	t....i..	.....	.....	
000760	7C	DB	74	A7	FF	B6	7C	DB-FF	B6	7A	D8	9A	00	00	00	.....	.....	x..uG..	.....	
000770	00	83	C4	04	EB	95	90	83-BE	78	D8	00	75	47	83	BE	.....	uG.....	u9....	.....	
000780	6E	DB	00	75	40	83	BE	BE-D8	00	75	39	83	BE	84	D8	.....	u2..hd..j..	.....	.....	
000790	00	75	32	1E	68	64	00	6A-00	9A	00	00	00	00	00	83	C4	.....	x....n..	.....	.....
0007A0	06	C7	86	78	DB	05	00	C7-86	6E	D8	05	00	C7	86	BE	.....	+....<..	.....	.....	
0007B0	DB	2B	00	C7	86	84	D8	3C-00	C7	86	90	DB	0C	00	C7	.....	.....	i....z..	.....	
0007C0	B6	86	DB	08	00	FF	B6	7C-D9	FF	B6	7A	D8	9A	00	00	.....	.....	u..	.....	
0007D0	00	00	83	C4	04	B3	BE	BE-D8	00	75	06	C7	86	BE	D8	.....	.....	u..	.....	
0007E0	08	00	83	BE	B4	D8	00	75-06	C7	86	84	D8	0A	00	83	.....	.....	u..	.....	
0007F0	BE	90	DB	00	75	06	C7	86-90	D8	0C	00	83	BE	86	D8	.....	.....	u..	.....	
000800	00	75	06	C7	B6	86	DB	08-00	B3	BE	92	D8	00	75	13	u..	.....	u..	.....	
000810	B3	7E	FA	00	75	0D	9B	DF-B6	BE	DB	9B	DF	86	84	DB	.....	.....	F..	.....	
000820	EB	0A	90	9B	DF	86	92	DB-9B	DF	46	FA	9B	DE	C1	9B	.....	6.....	.....	.....	
000830	DC	36	08	00	9B	D9	96	60-DB	9B	DC	06	10	00	9B	DC	.....	=1..~	.....	.....	
000840	OE	18	00	9A	00	00	00	00-89	B6	BB	D8	3D	31	00	7E	.....	.....	1..	.....	.....
000850	06	C7	B6	88	DB	31	00	BB-B6	B6	D8	99	B9	04	00	F7	.....	.....	.....	.....	
000860	F9	89	B6	E8	DB	BB	B6	BB-D8	99	B9	03	00	F7	F9	B9	.....	.....	T.F..	.....	
000870	B6	E6	DB	EB	54	BB	46	0A-89	B6	BB	D8	BB	46	0C	89	.....	F..	.....	1..	
000880	B6	EB	DB	BB	46	0E	89	BB-E6	D8	B3	BE	BB	D8	31	7E	.....	.....	h..j..	.....	
000890	06	C7	B6	BB	DB	31	00	1E-B8	B6	00	6A	00	9A	00	00	.....	.....	1..h..j..	.....	

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0008A0 00 00 B3 C4 06 C7 86 7B-DB 05 00 C7 86 6E D8 05 .....x....n...  
 0008B0 00 C7 86 BE DB 2B 00 C7-B6 84 D8 3C 00 C7 86 90 .....+....<...  
 0008C0 DB 0C 00 C7 86 86 D8 0B-00 1E 68 A8 00 9A 00 00 .....h....  
 0008D0 00 00 B3 C4 04 BE 06 02-00 BB 86 E6 D8 26 39 06 .....&....&9.  
 0008E0 00 00 75 08 BB 86 E8 D8-89 86 E6 D8 8B 86 88 D8 ..u.....  
 0008F0 BE 06 00 00 26 2B 06 00-00 89 86 64 D8 8B 86 88 .....&+....d....  
 000900 DB 99 BE 06 20 00 26 F7-3E 00 00 26 A1 00 00 0B .....&>..&....  
 000910 CA F7 AE 88 D8 2B C1 89-86 6A D8 8B 86 88 D8 99 .....+....j....  
 000920 26 F7 3E 00 00 89 46 FC-03 86 88 D8 89 46 FE FF &>...F.....F..  
 000930 B6 E6 DB FF B6 EB D8 FF-B6 88 D8 1E 68 CD 00 8D .....h....  
 000940 86 96 D8 16 50 9A 00 00-00 00 B3 C4 0E 8D 86 96 ...P.....  
 000950 D8 16 50 6A 00 9A 00 00-00 00 B3 C4 06 8B 86 7B ..Pi.....X  
 000960 D8 B9 86 82 D8 8B 86 6E-D8 89 86 74 D8 8B 86 90 .....n....t....  
 000970 D8 F7 AE BE D8 03 86 7B-D8 89 86 76 D8 8B 86 86 .....X...V...  
 000980 D8 F7 AE B4 D8 03 86 6E-D8 89 86 6C D8 8E 06 20 .....n...l...  
 000990 00 8B 46 08 26 39 06 00-00 75 0A BE 06 22 00 26 ..F..&7...u...&  
 0009A0 A1 00 00 EB 08 BE 06 02-00 26 A1 00 00 89 86 94 .....&....  
 0009B0 D8 FF B6 6C D8 FF B6 76-D8 FF B6 74 D8 FF B6 82 ...1...V...&....  
 0009C0 D8 50 FF 76 06 9A 00 00-00 00 B3 C4 0C BE 06 04 ..P.v.....  
 0009D0 00 26 FF 36 00 00 6A 02-9A 00 00 00 00 B3 C4 04 ..&.6..j.....  
 0009E0 BE 06 04 00 49 9C 03 01-C7 B1 9C CF A8 56 16 C7 ...1.....V..  
 0009F0 A3 56 29 C7 9E 9C CF 95-56 1B C7 7A 56 21 C7 76 ..V).....V..zV!..V  
 000AA0 9C C7 70 56 26 C7 6C 9C-C7 56 23 C7 5E 9C CF ..pV&.1..fV#.V..  
 000A10 25 56 1D CF 15 56 27 C7-0C 9D C6 F2 56 23 C6 DC ZV...V'....V#..  
 000A20 56 23 C6 D8 56 23 C6 D3-9C C6 C6 56 22 C6 C1 9C V#..V#....V"..  
 000A30 C6 AF 56 21 C6 A6 9C CE-9D 56 1A C6 94 9D CE 6D ..V!....V....m  
 000A40 56 1D C6 68 9D CE 13 56-20 C6 10 9C C6 0D 56 05 V..h...V ....V.  
 000A50 C6 0B 9C C6 08 56 05 C6-03 56 05 C6 01 9C C5 FE ..V...V...V...V..  
 000A60 56 05 C5 FB 56 05 C5 F7-56 05 C5 F2 56 05 C5 EA V...V...V..iV..d  
 000A70 56 05 C5 E5 56 05 C5 9D-56 17 C5 69 56 1D C5 64 ..<V...V...V...  
 000A80 9D CD 3C 56 17 CD 1E 56-2C CC D3 56 10 C4 D0 9D ..V...V...V..IV"  
 000A90 CC B3 56 19 CC 90 56 09-CC 7F 56 0C C4 7C 56 22 ..w..eV).n..eV..  
 000AA0 C4 77 9C C4 73 56 29 C4-6E 9C CC 65 56 12 C4 60 V".I..RV..MV).H.  
 000AB0 56 22 C4 5B 9C CC 52 56-16 C4 4D 56 29 C4 48 9C ..?V..1V....\*V\*.  
 000AC0 CC 3F 56 0A CC 31 56 1F-C4 2E 9D C4 2A 56 2A C4 .."V"....V)...  
 000AD0 26 9C C4 22 56 22 C4 1E-9C C4 1A 56 29 C4 16 9C ..V!.....  
 000AE0 C4 12 56 21 C4 0E 9C C8-08 9D BE A0 B4 03 01 91 ..&.6..j.....  
 000AF0 04 26 FF 36 00 00 6A 02-9A 00 00 00 00 B3 C4 04 ..&.6..j.....  
 000B00 6A 01 9A 00 00 00 00 B3-C4 02 6A 08 BE 06 02 00 ..&.6...v...v....  
 000B10 26 FF 36 00 00 FF 76 06-FF 76 06 9A 00 00 00 00 ..j....&.6...v  
 000B20 B3 C4 0B 6A 08 BE 06 02-00 26 FF 36 00 00 FF 76 ..v.....j...  
 000B30 06 FF 76 06 9A 00 00 00-00 B3 C4 08 6A 01 9A 00 .....j...\$.&.6.  
 000B40 00 00 00 B3 C4 02 6A 08-BE 06 24 00 26 FF 36 00 00 9A ..&.6..&.6...  
 000B50 00 BE 06 02 00 26 FF 36-00 00 26 FF 36 00 00 9A .....j...\$.&.6.  
 000B60 00 00 00 00 B3 C4 08 6A-08 BE 06 24 00 26 FF 36 .....j...\$.&.6.  
 000B70 00 00 BE 06 02 00 26 FF-36 00 00 26 FF 36 00 00 ..&.6..&.6..

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000B80	9A 00 00 00 00 B3 C4 08-8E 06 02 00 26 A1-00 00	.....&..
000B90	89 86 8C DB 3D 63 00 7F-54 6B C0 64 8B F8 BB 64	....=c.Tk.d...d
000BA0	00 2B 86 BC D8 89 86 56-D8 01 86 8C DB BE 06 02	..+....V.....
000BB0	00 26 8B 36 00 00 B3 FE-63 7F 25 BB 64 00 2B C6	.&.6...c%..d.+.
000BC0	89 86 58 DB 8B DF 03 DE-03 DD 26 A0 00 00 8B BE	..X.....&....
000BD0	58 D8 57 8D BF EA DB 16-07 F2 AA 5F 03 B6 58 DB	X.W.....-..X.
000BE0	83 C7 64 81 FF AC 26 7E-C4 89 86 66 DB 8B 46 FC	..d...&..f..F.
000BF0	89 86 8C DB 8B 46 FE 39-86 BC DB 7D 5C 6B 46 FC	....F.9...3\kF.
000C00	64 89 86 56 D8 8B 46 FE-2B 46 FC 89 86 5A DB 01	c..V..F.+F...Z..
000C10	86 8C DB 8B BE 58 DB 2E-06 02 00 26 8B 36 00 00	....3.....&.6..
000C20	3B 86 64 D8 7D 24 8B BE-6A DB 2B FE 8B 9E 56 DB	:..j..3\$..3.+...V..
000C30	03 DE 0C DD 8E 06 00 00-26 A0 00 00 8B CF 57 BD	.....5.....W..
000C40	BF EA DB 16-07 F2 AA 5F-03 F7 83 86 56 DB 64 FF	.....-....V.G.
000C50	8E 5A DB 75 C2 89 86 8e-D8 8B 86 6A DB BE 06 00	.z.u...t...j....
000C60	00 26 2B 06 00 00 89 Be-6A DB 26 A1 00 00 03 46	.&+.....&....F
000C70	FC 89 86 7E DB 8E 06 02-00 26 A1 00 00 89 86 80	....^....&....
000C80	D8 8B 46 FC 39 86 80 D8-7D 7D 6B 86 80 DB 64 89	..F.9...3\k...d.
000C90	86 56 DB 6B 86 8A DB 84-89 86 58 DB 8B 46 FC 2B	.V.k...d..x..F.+
000CA0	86 86 DB 89 86 5A DB 01-86 80 DB F7 DB 01 86 8A	....Z.....
000CB0	DB 8B 76 FE 8B 8E 7E DB-BE 06 00 00 26 2B 0E 00	..v...7....5+..
000CD0	00 3B CE 7D 26 26 8B 3E-00 00 8B 9E 56 DB 03 D9	.:..&&..>....V..
000CD0	03 DD 8B C7 36 88 87 EA-D8 8B 9E 58 DB 03 D9 03	....6.....X....
000CE0	DD 36 88 87 EA DB 41 3B-CE 7C DF B3 AE 58 DB 64	.6....A;..i...X.d
000CF0	FF 8E 7E DB 46 B3 86 56-D8 64 FF BE 5A DB 75 B4	..^..F..V..d..Z..u..
000D00	89 76 FE 89 8E 66 DB 9A-00 00 00 00 01 1E 68 F9 00	.v...f.....h..
000D10	6A 01 9A 00 00 00 00 B3-C4 06 1E 68 10 01 6A 05	j.....h..j..
000D20	6A 0A 94 00 00 00 00 B3-C4 08 8E 06 02 00 26 A1	j.....j.9...i..
000D30	00 00 89 86 BA DB 8B 86-6A DB 39 86 8A DB 7C 03	.9...d....T.k..
000D40	E9 67 01 8B 86 64 DB F7-D8 89 86 54 DB 6B 86 8A	.d..Z.k...d..R.j
000D50	DB 64 89 86 5A DB 6B 86-E8 DB 64 89 86 52 DB 6A	..j.....
000D60	00 FF B6 6A DB FF B6 8A-D8 9A 00 00 00 00 B3 C4	....&..;..j..i..
000D70	06 BE 06 02 00 26 8B 3E-00 00 3B B6 6A DB 7D 03	....T...V...d.+
000D80	E9 06 01 8B 86 54 DB 89-86 56 DB 8B 86 64 DB 2B	....X...~...Z....
000D90	B6 2A DB 89 86 58 DB 8B-7E 08 8B 9E.5A DB 03 DE	..6.....u.....X
000DAO	03 DD 36 80 BF EA DB 00-75 03 E9 CF 00 8B 86 5B	....f...V.....F
000DB0	DB 89 86 66 DB 8B 86 56-D8 03 C6 89 86 8C DB 50	..f.....&.6....\$
000DC0	FF B6 66 DB 8E 06 00 00-26 FF 36 00 00 8E 06 24	....&....
000DD0	00 26 FF 36 00 00 9A 00-00 00 00 B3 C4 08 6A 01	....W...&.6
000DE0	9A 00 00 00 00 B3 C4 02-57 BE 06 20 00 26 FF 36	....&....&
000DF0	00 00 BE 06 00 00 26 FF-36 00 00 8E 06 02 00 26	.6.....W..
000EO0	FF 36 00 00 9A 00 00 00-00 B3 C4 08 57 BE 06 20	.&.6.....&.6..
000E10	00 26 FF 36 00 00 BE 06-00 00 26 FF 36 00 00 BE	...&.6.....
000E20	06 02 00 26 FF 36 00 00-9A 00 00 00 00 B3 C4 08	j.....j..
000E30	6A 01 9A 00 00 00 8E 06 20-00 26 FF 36 00 00 26 FF	&.6... .&.6..&
000E40	26 FF 36 00 00 BE 06 20 00 00 00 B3 C4 08 6A 08 BE	6.....j....
000E50	36 00 00 9A 00 00 00 00-83 C4 08 6A 08 04	

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000E60 00 26 FF 36 00 00 BE 06-20 00 26 FF 36 00 00 26 .&.6.... .&.6...&  
 000E70 FF 36 00 00 9A 00 00 00-00 83 C4 08 03 B6 E6 DB .6.....  
 000E80 39 B6 6A DB 7E 03 E9 11-FF 8B 86 52 DB 01 B6 5A 9.j.~.....R..Z.  
 000E90 D8 BB 86 E8 DB 01 86 BA-DB 8B 86 6A DB 39 B6 8A .....j.9..  
 000EA0 D8 1C 9C 2C 01 CF 84 56-1E C7 81 56 23 C7 7C 56 ....,V...V#..IV  
 000EB0 23 C7 77 9C C7 73 56 29-C7 6E 9C CF 63 56 1E C7 #.W..SV).n..cV..  
 000EC0 60 56 23 C7 5B 56 23 C7-56 9C C7 52 56 29 C7 4D 'V#.CV#.V..RV).M  
 000ED0 9C CF 42 56 13 CF 38 56-1E C7 35 56 21 C7 30 9C ..BV..BV..BV!.O.  
 000EE0 C7 2C 56 22 C7 27 9C C7-23 56 23 C7 1E 9C CF 14 .,V".',#V#....  
 000EF0 56 1E C7 11 56 21 C7 0C-9C C7 08 56 22 C7 03 9C V...V!....V"....  
 000FOG C6 FF 56 23 C6 FA 9C CE-F0 56 13 CE E6 56 08 C6 ..V#....V...V..  
 000F10 E3 56 24 C6 DE 9C C6 DA-56 22 C6 D5 9C C6 87 56 .V\$....V"....V  
 000F20 21 C6 82 9C CE 79 56 2B-C6 3F 56 21 C6 3B 9C CE !....yV+.PV!.;..  
 000F30 32 56 2B C6 2B 9D CE 22-56 1D C6 1D 9D CE 17 56 2V(.+..V.....V  
 000F40 25 C5 D7 56 22 C5 CE 56-22 C5 C9 9C C5 8A 56 21 %..V"....V"....V!  
 000F50 C5 86 9C C5 7B 56 22 C5-73 56 22 C5 6E 9C C5 49 ....CV".eV".n..I  
 000F60 56 22 C5 45 9C C5 2D 56-21 C5 2B 9C C4 DB 56 21 V".E..-V!.(...V!  
 000F70 C4 C3 56 21 C4 BE 9C C4-9D 56 21 C4 99 9C CC 90 ..V!....V!....  
 000F80 56 1E C4 8D 56 21 C4 8B-56 21 C4 83 9C C4 7F 56 V...V!..V!....V  
 000F90 24 C4 7A 9C CC 6F 56 1E-C4 6C 56 21 C4 57 56 21 \$..z..oV..IV!.gV!  
 000FA0 C4 62 9C C4 5E 56 24 C4-59 9C CC 4E 56 13 CC 44 .b..^V\*.Y..NV..D  
 000FB0 56 1E C4 3B 56 21 C4 36-9C CC 2B 56 1E C4 22 56 V..;V!.6..+V..;"V  
 000FC0 21 C4 1D 9C CC 12 56 13-CC 08 56 16 C4 03 56 29 !....V...V...V)  
 000FD0 63 A0 7F 02 01 41 08 7D-03 E9 B9 FE 89 B6 7E D8 C..A.J....  
 000FE0 6A 00 FF B6 6A DB FF B6-6A DB 9A 00 00 00 00 83 j...j...j.....  
 000FF0 C4 06 1E 68 34 01 6A 01-9A 00 00 00 00 83 C4 06 ...h4.j.....  
 001000 6A 00 BE 06 00 26 FF-36 00 00 6A FF BE 06 04 j....&.6..j....  
 001010 00 26 FF 36 00 00 9A 00-00 00 00 83 C4 08 6A 00 .&.6.....j.  
 001020 BE 06 00 26 FF 36 00-00 6A FF BE 06 04 00 26 ....&.6..j....&  
 001030 FF 36 00 00 9A 00 00 00-00 83 C4 08 6A 01 9A 00 .6.....j...  
 001040 00 00 00 83 C4 02 6A 08-BE 06 00 00 26 FF 36 00 .....j....&.6..  
 001050 00 BE 06 24 00 26 FF 36-00 00 26 FF 36 00 00 9A ...\$.&.6..&.6...  
 001060 00 00 00 00 83 C4 08 6A-08 BE 06 00 00 26 FF 36 .....j....&.6  
 001070 00 00 BE 06 24 00 26 FF-36 00 00 26 FF 36 00 00 ...\$.&.6..&.6..  
 001080 9A 00 00 00 00 83 C4 08-6A 01 9A 00 00 00 00 83 .....j....&.6.  
 001090 C4 02 C7 86 7E DB 05 00-BE 05 00 6A 05 6A 00 9A .....~....j..j..  
 0010A0 00 00 00 00 83 C4 04 6A-08 BE 06 02 00 26 FF 36 .....j....&.6  
 0010B0 00 00 BE 06 20 00 26 FF-36 00 00 26 FF 36 00 00 .....&.6..&.6..  
 0010C0 9A 00 00 00 00 83 C4 08-6A 08 BE 06 02 00 26 FF 6.... .&.6..&.6.  
 0010D0 36 00 00 BE 06 20 00 26-FF 36 00 00 26 FF 36 00 .....Nu.j...  
 0010E0 00 9A 00 00 00 00 83 C4-08 4E 75 AF 6A 08 BE 06 .....&.6....&.6..  
 0010F0 20 00 26 FF 36 00 00 BE-06 00 00 26 FF 36 00 00 .&.6....&.6..  
 001100 26 FF 36 00 00 9A 00 00-00 00 83 C4 08 6A 08 BE .&.6....&.6..  
 001110 06 20 00 26 FF 36 00 00-BE 06 00 00 26 FF 36 00 . .&.6....&.6.  
 001120 00 26 FF 36 00 00 9A 00-00 00 00 83 C4 08 6B FF .&.6....h..  
 001130 00 6A 00 9A 00 00 00 00-B3 C4 04 6B FF 00 6A 01 .j.....h..j.

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001140	9A 00 00 00 00 B3 C4 04-0E EB 00 00 6A 06-0E 06	.....j....
001150	24 00 26 FF 36 00 00 8E-06 02 00 26 FF 36 00 00	\$..&..6.....&.6..
001160	26 FF 36 00 00 9A 00 00-00 00 B3 C4 08 6A 08 8E	&..6.....j..
001170	06 24 00 26 FF 36 00 00-BE 06 02 00 26 FF 36 00	-\$..&..6.....&.6..
001180	00 26 FF 36 00 00 9A 00-00 00 B3 C4 08 6A 08	.&..6.....j..
001190	BE 06 02 00 26 FF 36 00-00 BE 06 00 00 26 FF 36	....&..6.....&.6
0011A0	00 00 26 FF 36 00 00 9A-00 00 00 B3 C4 08 6A	....&..6.....&..
0011B0	08 BE 06 02 00 26 FF 36-00 00 BE 06 00 00 26 FF	....&..6.....&..
0011C0	36 00 00 26 FF 36 00 00-9A 00 00 00 B3 C4 08	6...&..6.....
0011D0	6A 08 BE 06 00 00 26 FF-36 00 00 BE 06 20 00 26	i.....&..6.....&..
0011E0	FF 36 00 00 26 FF 36 00-00 9A 00 00 00 B3 C4	.6...&..6.....
0011F0	08 6A 08 BE 06 00 00 26-FF 36 00 00 BE 06 20 00	.j.....&..6.....
001200	26 FF 36 00 00 26 FF 36-00 00 9A 00 00 00 B3	&..6...&..6.....
001210	C4 08 BE 06 20 00 BB 46-08 28 39 08 00 00 75 0E	....F.&9...u..
001220	BE 06 02 00 26 A1 00 00-E8 0A 90 90 BE 06 22 00	....&.....
001230	26 A1 00 00 89 86 94 D8-FF B6 6C D8 FF B6 76 D8	.....1....v..
001240	FF B6 74 D8 FF B6 B2 D8-50 6E 06 20 00 26 FF 36	..t.....P... .&..6
001250	00 00 1E 9C 6C 01 C6 79-56 23 C6 74 9C C6 5E 5E	....1...yV#.t...EV
001260	26 C6 57 9C C6 4F 56 21-C6 4B 9C C6 4E 56 23 C6	&..W..0V!.K..EV#.
001270	3D 9C C6 34 56 1E C6 31-56 23 C6 2C 5E 23 C6 27	=..4V..1V#.VV#.
001280	9C C6 23 56 22 C6 1E 9C-CE 13 5E 1E C6 10 56 23	..#V"....V...V#
001290	C6 0B 56 23 C6 08 9C C6-02 56 22 C5 FD 9C CD F2	..V#....V".....
0012A0	56 1E C5 EF 56 22 C5 EA-56 22 C5 E8 9C C5 E1 56	V...V"....V".....V
0012B0	21 C5 DC 9C CD D1 56 1E-D5 CE 56 22 C5 C9 56 22	!....V!....V..
0012C0	C5 C4 9C C5 C0 56 21 C5-BE 9C CD B0 56 1E C5 AD	....V!....V\$....
0012D0	56 21 C5 A8 56 21 C5 A3-9C C5 9F 56 24 C5 9A 9C	..V...V!..V!....
0012E0	CD 8F 56 1E C5 8C 56 21-DS 87 56 21 C5 82 9C C5	~V\$.y..=V..jV..J
0012F0	7E 56 24 C5 79 9C 85 73-56 0E CD 6A 56 0D CD 5D	V..PV..MV".HV".C
001300	56 0D CD 50 56 1E C5 4D-56 22 C5 48 56 22 C5 43	..?V#..:/V...V"
001310	9C C5 3F 56 23 C5 3A 9C-CD 2F 56 1E C5 2C 56 22	.'V"....V#....
001320	C5 27 56 22 C5 22 9C C5-1E 56 23 C5 19 9C CD 0B	V...V#..V#....V
001330	56 1E C5 06 56 23 C5 03-56 23 C4 FE 9C C4 FA 56	!....V...V#..V#
001340	21 C4 F5 9C CC EA 56 1E-C4 E7 56 23 C4 E2 56 23	....V!....V..
001350	C4 DD 9C C4 D9 56 21 C4-D4 9C 0C C9.56 0B CC B4	V...V...V\$..V\$..
001360	56 13 CC AA 56 1E C4 A7-56 24 C4 A2 56 24 C4 9D	...V"....V...V\$..
001370	9C C4 99 56 22 C4 94 9C-CC 89 56 1E C4 86 56 24	.V\$.I..xV"..s..h
001380	C4 81 56 24 C4 7C 9C C4-78 56 22 C4 73 9C CC 68	V..^V..(V).V..PV
001390	56 13 CC 5E 56 15 C4 5B-56 29 C4 56 9C C4 50 56	*.K..@V..=V).B..
0013A0	2A C4 4B 9C CC 40 56 15-C4 3D 56 29 C4 3B 9C C4	2V*.-."V.....V
0013B0	32 56 2A C4 2D 9C CC 22-56 1D C4 1D 9D CC 14 56	+V.^.....
0013C0	2B 56 A0 7E 00 01 BC 0A-9A 00 00 00 00 B3 C4 0C	j..j.....
0013D0	6A 03 6A 02 9A 00 00 00-00 B3 C4 04 BE 06 00 00	&..6..j.....j
0013E0	26 FF 36 00 00 6A 01 9A-00 00 00 00 B3 C4 04 6A	.j..j..j.....j
0013F0	00 6A 03 6A FF 6A 02 9A-00 00 00 00 B3 C4 08 9A	.j..j..j.....
001400	00 6A 03 6A FF 6A 02 9A-00 00 00 00 B3 C4 08 9A	.j..j..j.....^
001410	00 00 00 00 9A 00 00 00-00 BB 01 00 1F 5E 5F C9	.....

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001420	CB 90 CB 00 00 00 1E BB-00 00 BE DB 6A 00	6A 00 .....	j..j..
001430	6A 00 FF 76 08 FF 76 06-0E EB 00 00 B3 C4 0A 1F	j...v...v.....	
001440	C9 CB E6 9C 2B 00 84 72-56 1C CB 60 9D CC 4D 56	....+...rV...MV	
001450	14 CC 48 56 0F CC 40 56-15 CC 30 56 15 CC 20 56	..HV..@V..OV.. V	
001460	12 C4 1B 56 22 C4 16 9C-CC 0D 56 16 CC 01 56 1B	...V"....V...V.	
001470	BE BA 02 00 00 74	.....t	
001470	BE BA 02 00 00 74	.....t	

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000000	80 0B 00 09 71 75 61 64-5F 39 37 2E 63 61 68 07	....quad_97.ca..
000010	00 00 00 4D 53 20 43 6E-88 09 00 00 9F 4C 4C 49	...MS Cn.....LLI
000020	42 43 45 25 88 06 00 00-9D 32 6C 4F E8 88 06 00	BCE%.....210....
000030	00 A1 01 43 56 37 96 35-00 00 06 44 47 52 4F 55	...CV7.5...DGR0U
000040	50 0C 51 55 41 44 5F 39-37 5F 54 45 58 54 04 43	P.QUAD_97_TEXT.C
000050	4F 44 45 05 5F 44 41 54-41 04 44 41 54 41 05 43	ODE._DATA.DATA.C
000060	4F 4E 53 54 04 5F 42 53-53 03 42 53 53 37 98 07	DNST._BSS.BSS7..
000070	00 48 B8 23 03 04 01 36-98 07 00 48 9A 0A 05 06	.H.#...6...H....
000080	01 69 98 07 00 48 2E 00-07 07 01 DC 96 07 00 48	.1...H.....H.....
000090	1E 00 08 09 01 E9 5A 08-00 02 FF 03 FF 04 FF 02	.....
0000A0	56 9C 0D 00 00 03 01 02-02 01 03 04 40 01 45 01	.....@.E.
0000B0	00 8C A8 00 09 5F 5F 66-6C 74 75 73 65 64 00 06	.....fitused..
0000C0	46 4A 53 52 51 51 00 06-45 49 53 52 51 51 00 06	FISR0Q..FISR0Q..
0000D0	46 49 45 52 51 51 00 06-46 49 44 52 51 51 00 06	FIER0Q..FIDR0Q..
0000E0	46 49 57 52 51 51 00 0A-5F 5F 61 63 72 74 75 73	FIWR0Q.._acrtus
0000F0	65 A4 00 13 5F 67 65 74-5F 65 78 70 65 72 69 5D	ed.._get_experim
000100	65 6E 74 5F 6B 65 79 00-11 5F 72 55 61 64 5F 72	ent_key.._read_c
000110	61 6D 5F 64 69 73 6B 5F-66 62 00 09 5F 61 46	am_disk_fb.._af
000120	75 6C 64 69 76 00 12 5F-67 65 74 5F 70 62 78 65	uidiv.._get_pixe
000130	6C 73 5F 70 63 72 5F 6D-6D 00 0C 5F 6D 63 73 73	ls_per_mm.._mess
000140	61 67 65 5F 6F 66 66 00-07 5F 5F 63 74 79 70 68	age_off.._ctype
000150	00 08 5F 73 70 72 69 6E-74 66 00 8A 84 09 00 06	.._sprintf.....
000160	6D 76 5F 63 69 72 00 BD-8C 16 00 08 5F 6D 65 6E	mv_cir....._men
000170	75 5F 77 6E 00 09 5F 69-6D 5F 70 61 69 6E 74 00	u_wm.._im_paint.
000180	45 B4 1D 00 0D 63 6C 65-61 73 5F 59 4E 5F 66 6C	E..._clear_YN_fi
000190	61 67 00 0B 52 4E 50 4F-52 54 5F 43 49 52 43 00	ag..REPORT_CIRC.
0001A0	B5 8C 4E 01 07 5F 75 6E-6C 69 6E 6B 00 10 5F 63	..N.._uniink.._c
0001B0	6C 65 61 72 5F 6D 65 6E-75 5F 61 72 65 61 00 0B	lear_menu_area..
0001C0	5F 69 6D 5F 72 6F 77 72-00 17 5F 77 72 69 74 65	_im_rowr.._write
0001D0	5F 64 65 6E 73 69 74 79-5F 72 65 63 6F 72 64 39	_density_records?
0001E0	37 00 15 5F 63 6C 6F 73-65 5F 73 74 61 6E 64 61	7.._close_standa
0001F0	72 64 73 5F 66 69 6C 65-00 08 5F 69 6D 5F 72 6F	rds_file.._im_ro
000200	77 77 00 0A 5F 69 6D 5F-74 6F 64 69 73 6B 00 0E	ww.._im_todisk..
000210	5F 67 65 74 5F 73 74 61-6E 64 61 72 64 73 00 07	_get_standards..
000220	5F 65 72 72 6D 73 67 00-0C 5F 69 6D 5F 64 72 61	_errmsg.._im_dra
000230	77 6D 6F 64 65 00 0F 5F-73 65 74 5F 6D 65 6E 75	wmode.._set_menu
000240	5F 74 69 74 6C 65 00 06-5F 63 6C 6F 73 65 00 08	_title.._close..
000250	5F 71 75 61 64 5F 39 37-00 07 5F 73 74 72 64 73	_quad_97.._strds
000260	70 00 0E 5F 73 65 74 5F-6D 65 6E 75 5F 6C 69 6E	p.._set_menu_lin
000270	65 00 06 5F 64 65 6E 73-6D 00 0B 5F 69 6D 5F 6F	e.._densm.._im_o
000280	75 74 70 61 74 68 00 0C-5F 73 65 74 5F 6D 65 73	utpath.._set_mes
000290	73 61 67 65 00 07 5F 6D-76 5F 62 6F 78 00 0E 5F	sage.._mv_box.._
0002A0	69 6D 5F 69 6E 74 65 72-69 6D 61 67 65 00 11 5F	im_interimage.._
0002B0	73 65 74 5F 73 63 72 65-65 6E 5F 74 69 74 6C 65	set_screen_title
0002C0	00 0A 5F 69 6D 5F 63 69-72 63 6C 63 00 16 5F 67	.._im_circle.._g
0002D0	65 74 5F 66 5F 6F 70 74-69 63 61 6C 5F 64 65 6E	et_f_optical_den

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0002E0	73 69 74 79 00 0A 5F 69-6D 5F 70 69 7B 62 6C 74	sity.._im_pixblt
0002F0	00 23 B4 19 00 0B 43 4C-45 41 52 5F 46 52 41 4D	.#....CLEAR_FRAM
000300	45 00 09 74 65 78 74 5F-70 72 65 70 00 13 8C 15	E..text_prep...
000310	00 12 5F 77 72 69 74 65-5F 72 61 6D 5F 64 69 73	.._write_ram_dis
000320	6B 5F 66 62 00 F3 B4 0A-00 07 72 6F 77 5F 74 78	k_fb.....row_tx
000330	74 00 24 8C 4C 00 05 5F-6F 70 65 6E 00 1C 5F 75	t.\$L.._open.._u
000340	70 64 61 74 65 5F 6D 6F-75 73 65 5F 62 75 74 74	pdate_mouse_but
000350	6F 6E 5F 64 69 73 70 6C-61 79 00 0C 5F 69 6D 5F	on_display.._im_
000360	73 63 74 63 6F 6C 6F 72-00 07 5F 49 4E 54 44 53	setcolor.._INTDS
000370	50 00 0D 5F 69 6D 5F 73-65 74 62 63 6F 6C 6F 72	F.._im_setbcolor
000380	00 3B B4 0E 00 0B 4C 41-42 45 4C 5F 43 45 4C 4C	.....LABEL_CELL
000390	53 00 01 8C 2B 00 09 5F-69 6D 5F 6F 62 73 75 6D	E...+_im_obsun
0003A0	00 03 5F 6B 69 00 07 5F-76 5F 70 6C 72 74 00 0F	.._ki..._v_plst..
0003B0	5F 67 65 74 5F 64 69 73-6B 5F 73 70 61 63 65 00	_get_disk_space.
0003C0	2F B4 0B 00 08 6C 61 62-65 6C 5F 72 63 00 05 BC	....label_rc...
0003D0	73 00 07 5F 6B 69 5F 63-68 6B 00 08 5F 69 6D 5F	s.._ki_chk.._im_
0003E0	69 6E 69 74 00 17 5F 67-65 74 5F 72 61 69 64 69	init.._get_ramdi
0003F0	73 6B 5F 66 72 65 65 5F-73 70 61 63 65 00 0A 5F	sk_free_space.._
000400	69 6D 5F 6F 70 6D 6F 64-65 00 06 5F 77 72 69 74	im_commode.._Writ
000410	65 00 0D 5F 69 6D 5F 64-69 73 66 6F 72 6D 61 74	e.._im_disformat
000420	00 09 5F 69 6D 5F 76 69-54 65 6F 00 0C 5F 6F 6B	.._im_video.._ok
000430	5F 74 6F 5F 70 72 69 6E-74 00 08 5F 69 6D 5F 73	_to_print.._im_s
000440	79 6E 63 00 3A B4 18 00-07 42 55 47 4C 44 5F 33	ync.:....BUILD_3
000450	00 0C 51 55 41 44 5F 39-37 5F 4C 4F 47 4F 00 95	..QUAD_97_LOGO..
000460	8C 32 00 07 5F 6D 6F 75-73 65 72 00 12 5F 64 65	.2.._mouser.._de
000470	6C 65 74 65 5F 72 61 6D-64 69 73 6B 5F 66 62 00	lete_ramdisk_fb.
000480	08 5F 69 6D 5F 6D 6F 76-65 00 08 5F 69 6D 5F 72	.._im_move.._im_r
000490	65 63 74 00 4F B4 0E 00-0B 52 45 50 4F 52 54 5F	ect.0....REPORT_
0004A0	4D 4F 44 45 00 D3 8C 54-00 07 5F 53 54 52 44 53	MODE...T.._STRDS
0004B0	50 00 1C 5F 67 65 74 5F-73 74 61 6E 64 61 72 64	P.._get_standard
0004C0	5F 67 72 69 64 5F 73 74-72 75 63 74 75 72 65 00	_grid_structure.
0004D0	1C 5F 70 75 74 5F 66 69-72 73 74 5F 64 65 6E 73	.._put_first_dens
0004E0	69 74 79 5F 73 74 72 75-63 74 75 72 65 00 0C 5F	ity_structure.._
0004F0	69 6D 5F 66 72 6F 6D 64-69 73 6B 00 11 B4 10 00	im_fromdisk....
000500	0D 59 4E 72 65 73 70 6F-6E 73 65 6D 73 67 00 D2	.YNresponsemsg..
000510	8C 2B 00 09 5F 63 6C 5F-6F 76 6C 75 74 00 06 5F	+.+_cl_ovlut..._
000520	5F 66 74 6F 6C 00 08 5F-69 6D 5F 77 6C 75 74 00	_ftol.._im_wlut.
000530	0B 5F 69 6D 5F 6F 75 74-6D 6F 64 65 00 FC B4 0A	.._im_outmode....
000540	00 07 4D 56 5F 43 49 52-34 00 27 8C 4A 00 08 5F	..MV_CIR4.'J.._
000550	69 6D 5F 6D 61 73 6B 00-09 5F 69 6D 5F 69 6D 61	im_mask.._im_ima
000560	67 65 00 1A 5F 70 75 74-5F 6E 74 68 5F 64 65 6E	ge.._put_nth_den
000570	73 69 74 79 5F 73 74 72-75 63 74 75 72 65 00 09	sity_structure..
000580	5F 69 6D 5F 63 6C 65 61-72 00 0B 5F 6D 65 73 73	.._im_clear.._mess
000590	61 67 65 5F 6F 6E 00 E9-B6 2D 00 00 01 06 6D 76	age_on....-....mv
0005A0	5F 63 69 72 46 23 00 0D-63 6C 65 61 72 5F 59 4E	_cirF#..clear_YN
0005B0	5F 66 6C 61 67 8C 00 00-0B 52 45 50 4F 52 54 5F	_flag....REPORT_

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0005C0 43 49 52 43 94 1A 00 79-90 2A 00 00 01 17 5F 77 CIRC...y.*...._w
0005D0 72 69 74 65 5F 64 65 6E-73 69 74 79 5F 72 65 63 rite_density_rec
0005E0 6F 72 64 39 37 9A 00 00-08 5F 71 75 61 64 5F 39 ord97...._quad_9
0005F0 37 6E 01 00 0D B6 BB 00-00 01 0B 43 4C 45 41 52 7n.....CLEAR
000600 5F 46 52 41 4D 45 30 1F-00 09 74 65 78 74 5F 70 _FRAME0...text_P
000610 72 65 70 D6 19 00 07 72-6F 77 5F 74 78 74 FC 19 rep....row_txt..
000620 00 0B 4C 41 42 45 4C 5F-43 45 4C 4C 53 8E 1F 00 ..LABEL_CELLS...
000630 0B 6C 61 62 65 6C 5F 72-63 02 20 00 07 42 55 49 .label_rc. ..BUI
000640 4C 44 5F, 33 6C 1E 00 0C-51 53 41 44 5F 39 37 5F LD_31...QUAD_97-
000650 4C 4F 47 4F 06 1E 00 0B-52 45 50 4F 52 54 5F 4D LOGO....REPORT_N
000660 4F 44 45 22 1A 00 0D 59-4E 72 55 73 70 6F 6E 73 .ODE"...YNresponse
000670 65 6D 73 67 00 00 00 07-4D 56 5F 43 49 52 34 2e smeg....MV_CIR4&
000680 22 00 2A 88 04 00 00 A2-01 D1 8D DE 01 02 06 00 ".*.....
000690 4E 6F 20 73 74 61 6E 64-61 72 64 71 20 66 69 6C No standards fil
0006A0 65 20 65 78 69 73 74 73-2C 20 63 61 6E 27 74 20 e exists, can't
0006B0 73 61 76 65 20 64 61 74-61 2E 0A 50 72 65 73 73 save data..Press
0006C0 20 61 6E 79 20 6B 65 79-20 74 6F 20 65 6F 6E 74 any key to cont
0006D0 69 6E 75 65 2E 00 71 75-61 64 5F 39 37 3A 20 43 inue..quad_97: C
0006E0 61 6E 27 74 20 77 72 69-74 65 20 63 65 6C 6C 20 an't write cell
0006F0 64 65 6E 73 69 74 79 20-64 61 74 61 20 74 6F 20 density data to
000700 73 74 61 6E 64 61 72 64-73 20 68 69 6C 65 2E 20 standards file.
000710 43 61 6C 6C 20 42 56 49-2E 00 71 75 61 64 5F 39 Call BVI..quad_9
000720 37 3A 20 43 61 6E 27 74-20 77 72 69 74 65 20 63 7: Can't write c
000730 65 6C 6C 20 64 65 6E 73-69 74 79 20 64 61 74 61 ell density data
000740 20 74 6F 20 73 74 61 6E-64 61 72 64 71 20 66 69 to standards fi
000750 6C 6E 2E 20 43 61 6C 6C-20 42 56 49 2E 00 EB A0 le. Call BVI...
000760 67 02 02 D6 00 42 69 6F-6C 6F 67 69 63 61 6C 20 g....Biological
000770 56 69 73 69 6F 6E 20 2D-20 51 55 41 44 20 2D 20 Vision - QUAD -
000780 50 72 6F 62 65 20 64 69-66 65 72 65 6E 63 65 Probe difference
000790 20 61 6E 64 20 25 20 63-68 61 6E 67 65 00 71 75 and % change.out
0007A0 61 64 5F 39 37 3A 20 4E-6F 74 20 65 6E 6F 75 67 ad_97: Not enoug
0007B0 68 20 64 69 73 6B 20 73-70 61 63 65 20 74 6F 20 h disk space to
0007C0 72 75 6E 2E 00 71 75 61-64 5F 39 37 3A 20 4E 6F run..quad_97: No
0007D0 74 20 65 6E 6F 75 67 68-20 72 61 6D 20 64 69 73 t enough ram dis
0007E0 6B 20 73 70 61 63 65 20-74 6F 20 72 75 6E 2E 00 k space to run..
0007F0 2D 2D 2D 2D 2D 20 50 52-4F 43 45 53 53 49 4E 47 ----- PROCESSING
000800 20 49 4D 41 47 45 53 20-2D 2D 2D 2D 2D 2D 00 43 61 IMAGES ----.Ca
000810 6E 27 74 20 61 63 63 65-73 73 20 67 72 69 64 20 n't access grid
000820 64 61 74 61 2C 20 75 73-69 6E 67 20 64 65 66 61 61 data, using defau
000830 75 6C 74 73 00 55 73 69-6E 67 20 64 65 66 61 75 ults.Using defau
000840 6C 74 20 67 72 69 64 20-73 74 72 75 63 74 75 72 lt grid structur
000850 65 20 64 61 74 61 00 5C-62 76 69 5C 6D 69 6E 2E e data.\bvi\min.
000860 70 69 63 00 5C 62 76 69-5C 68 6F 6C 64 2E 70 69 pic.\bvi\hold.pi
000870 63 00 2D 2D 2D 2D 2D 20-43 41 4C 43 55 4C 41 54 c.----- CALCULAT
000880 49 4E 47 20 4F 50 54 49-43 41 4C 20 44 45 4E 53 ING OPTICAL DENS
000890 49 54 59 20 2D 2D 2D 2D-2D 00 2D 2D 2D 2D 2D 2D ITY -----.

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0008A0	50 52 4F 43 45 53 53 49-4E 47 20 49 4D 41* 47 45	PROCESSING IMAGE
0008B0	53 20 2D 2D 2D 2D 2D 00-43 68 65 63 6B 20 70 72	S -----Check pr
0008C0	69 6E 74 65 72 20 73 74-61 74 75 73 2C 20 70 72	inter status, pr
0008D0	65 73 73 20 49 20 74 6F-20 69 67 6E 6F 72 65 20	ess I to ignore
0008E0	69 74 2C 20 43 20 74 6F-20 63 6F 6E 74 69 6E 75	it, C to continu
0008F0	65 2E 00 50 52 4E 00 2A-2A 2A 2A 20 43 61 6E 20	e..PRN.**** Can
000900	6E 6F 74 20 6F 70 65 6E-20 64 65 76 69 63 65 20	not open device
000910	4C 69 6E 65 20 50 72 69-6E 74 65 72 20 2A 2A 2A	Line Printer ***
000920	2A 00 25 63 00 50 62 76-69 5C 68 6F 6C 64 2E 70	*.%c.\bvi\hold.o
000930	69 63 00 5C 62 76 69 5C-6D 65 6E 2E 70 69 63 00	ic.\bvi\min.pic.
000940	43 68 65 63 6B 20 70 72-69 6E 74 65 72 20 73 74	Check printer st
000950	61 74 75 73 2C 20 70 72-65 73 73 20 49 20 74 6F	atus, press l to
000960	20 69 67 6E 6F 72 65 20-69 74 2C 20 43 20 74 6F	ignore it, C to
000970	20 63 6F 6E 74 69 6E 75-65 2E 00 50 52 4E 00 2A	continue..PRN.*
000980	2A 2A 2A 20 43 61 6E 20-6E 6F 74 20 6F 70 65 6E	*** Can not open
000990	20 64 65 76 69 63 65 20-4C 69 6E 65 20 50 72 69	device Line Pri
0009A0	6E 74 65 72 20 2A 2A 2A-2A 00 25 63 00 5C 62 76	nter ***.%c.\bvi
0009B0	69 5C 6D 68 6E 2E 70 69-63 00 5C 62 76 69 5C 68	i\min.pic.\bvi\h
0009C0	6F 6C 64 2E 70 69 63 00-71 A0 89 03 02 F8 03 4D	old.pic.o.....M
0009D0	6F 73 65 20 74 68 65 20-6D 6F 73 73 65 20 74 6F	ove the mouse to
0009E0	20 70 6F 73 69 74 69 6F-6E 20 74 68 65 20 77 69	position the wi
0009F0	6E 64 6F 77 20 69 6E 74-6F 20 74 68 65 20 69 6D	ndow into the im
000AA0	61 67 65 73 00 53 75 72-72 6F 75 6E 64 20 61 20	ages. Surround a
000A10	64 6F 74 20 77 69 74 68-20 74 68 65 20 63 75 72	dot with the cur
000A20	73 6F 72 73 20 62 79 20-6D 6F 76 69 6E 67 20 74	sors by moving t
000A30	68 65 20 6D 6F 75 73 65-00 20 20 20 20 20 20 20 20	he mouse.
000A40	20 20 20 20 4D 4F 55 53-45 20 42 55 54 54 4F 4E	MOUSE BUTTON
000A50	20 41 43 54 49 4F 4E 20-4D 45 4E 55 20 20 20 20	ACTION MENU
000A60	20 20 20 20 20 20 00 CD-CD CD CD CD CD CD CD CD	-----
000A70	CD CD CD CD CD CB CD-CD CD CD CD CD CD CD CD	-----
000A80	CD CD CD CD CD CB CD-CD CD CD CD CD CD CD CD	-----
000A90	CD CD CD CD 00 20 20-4C 45 46 54 20 42 55 54	LEFT BUT
000AA0	54 4F 4E 20 20 BA 20 4D-49 44 44 4C 45 20 42 55	TON . MIDDLE BU
000AB0	54 54 4F 4E 20 BA 20 52-49 47 48 54 20 42 55 54	TTON . RIGHT BUT
000AC0	54 4F 4E 20 00 20 20 C4-54 6F 67 67 6C 65 20 74	TON . .Toggle t
000AD0	6F C4 20 20 BA 20 C4 C4-C4 48 6F 6C 64 20 74 6F	O. . . .Hold to
000AE0	C4 C4 20 BA 20 C4 C4-50 72 65 73 73 20 74 6F	... . Press to
000AF0	C4 C4 20 00 20 4D 4F 56-45 20 49 6D 61 67 65 73	... . MOVE Images
000B00	20 2F 20 BA 20 20 43 48-41 4E 47 45 20 53 49 5A	/ . CHANGE SIZ
000B10	45 20 20 BA 20 20 43 41-4C 43 55 4C 41 54 45 20	E . CALCULATE
000B20	20 20 00 20 4D 4F 56 45-20 43 75 72 73 6F 72 73	. MOVE Cursors
000B30	20 20 BA 20 20 20 6F 66-20 43 69 72 63 6C 65 20	. . of Circle
000B40	20 20 BA 20 4F 44 20 69-6E 20 63 75 72 73 6F 72	. OD in cursor
000B50	20 00 CD CD CD CD CD CD-CD CD CD CD CD CD CD	-----
000B60	CD CA CD CD CD CD CD CD D1 CD CD CD CD CD CD	-----
000B70	CD CA CD	-----

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000B80	00 20 20 20 20 20 4C 45-46 54 20 26 20 4D 49 44	LEFT & MID
000B90	44 4C 45 20 20 20 20-B3 20 20 20 20 4D 49 44	MID
000BA0	44 4C 45 20 26 20 52 49-47 48 54 20 20 20 20 00	DLE & RIGHT
000BB0	20 C4 C4 53 41 56 45 2F-50 52 49 4E 54 20 56 61	..SAVE/PRINT Va
000BC0	6C 75 65 73 C4 C4 20 B3-20 20 20 20 C4 C4 4E	lues... ...N
000BD0	6F 74 20 55 73 65 64 C4-C4 C4 20 20 20 20 00 CD	at Used... ..
000BE0	CD CD CD CD CD CD-CD CD CD CD CD CD CD CD	.....
000BF0	CD CD CD CD CF CD-CD CD CD CD CD CD CD	.....
000C00	CD CD CD CD CD CD-CD CD CD CD CD 00 20 20	.....
000C10	20 20 20 20 20 20 20 20 4C 45 46 54 20 20 26	LEFT &
000C20	20 20 4D 49 44 44 4C 45-20 20 26 20 20 52 49 47	MIDDLE & RIG
000C30	48 54 20 20 20 20 20 20-20 20 20 20 00 20 20 20	HT .
000C40	20 20 20 20 20 20 20 20-04 C4 C4 54 50 72 65 73	...Free
000C50	73 20 41 6C 6C 20 54 68-72 65 65 20 74 5F C4 C4	s All Three tc..
000C60	C4 20 20 20 20 20 20 20-20 20 20 20 20 20 20 20	.
000C70	45 58 49 54 20 50 72 6F-62 65 20 44 6F 66 66 65	EXIT Probe Diffe
000CB0	72 65 6E 63 55 20 26 20-50 65 71 53 55 6E 74 20	rence & Percent
000CD0	43 68 61 6E 67 65 20 20-20 20 00 CD C1 CD CD CD	Change .....
000CA0	CD	.....
000CB0	CD	..... 1. H
000CC0	CD	ove rectangle to
000CD0	6F 76 65 20 72 65 63 74-61 6E 67 6C 65 20 74 6F	select analysis
000CE0	20 73 65 6C 65 63 74 20-61 6E 61 6C 75 73 69 73	region.. 2. Le
000CF0	20 72 65 67 69 6F 6E 2E-00 20 20 32 2E 20 4C 65	ft Button to swi
000DD0	68 74 20 42 75 74 74 6F-6E 20 74 6F 20 73 77 69	tch to analysis
000D10	74 63 68 20 74 6F 20 61-6E 61 6C 79 73 69 73 20	mode. 3. Siz
000D20	6D 6F 64 65 2E 20 20 00-20 20 53 2E 20 53 69 7A	e and move cursor
000D30	65 20 61 6E 64 20 6D 6F-76 65 20 65 75 72 73 6F	and calculate
000D40	72 20 61 6E 64 20 63 61-6C 63 75 6C 61 74 65 20	00. .....
000D50	4F 44 2E 20 20 00 CD-CD CD CD CD CD CD CD CD	.....
000D60	CD CD CD CD CD CD CD-CD CD CD CD CD CD	.....
000D70	CD CD CD CD CD CD CD-CD CD CD CD CD	.....!.....!.
000D80	CD CD CD CD 3C A0 21 00-02 AD 07 CD 00 31 00 32	.3.4.5.6.7.8.9.1
000D90	00 33 00 34 00 35 00 36-00 37 00 38 00 39 00 31	0.11.12.....A
000DA0	30 00 31 31 00 31 32 00-B9 A0 14 00 02 FA 07 41	.B.C.D.E.F.G.H.%
000DB0	00 42 00 43 00 44 00 45-00 46 00 47 00 48 00 25	....*.Move Circ1
000DC0	A0 2E 02 02 2A 08 4D 6F-76 65 20 43 69 72 63 6C	es / Radius = %2
000DD0	65 73 20 2F 20 52 61 64-69 75 73 20 3D 20 25 32	d.Size Circles /
000DE0	64 00 53 69 7A 65 20 43-69 72 63 6C 65 73 20 2F	Radius = %2d.Mo
000DF0	20 52 61 64 69 75 73 20-3D 20 25 32 64 00 4D 6F	ve Images.). ...
000E00	76 65 20 49 6D 61 67 65-73 00 29 00 20 C9 CD CD	.....
000E10	CD CD CD CD CD CD CD-CD CD CD D1 CD CD CD CD	.....
000E20	CD CD CD CD CD CD CD-CD D1 CD CD CD CD CD	.....
000E30	CD CD CD CD CD BB-00 20 BA 20 20 20 20 20	%6d . %6d
000E40	25 36 64 20 20 B3 20 20-20 20 25 36 64 20 20 20	. Cell = %e%2e
000E50	B3 20 43 65 6C 6C 20 20-3D 20 25 73 25 32 73 20	.

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002B20	0E 9C C4 0B 56 05 C4 06-56 05 C4 00 56 05-53 AO	....V...V...V.S.
002B30	B6 03 01 42 11 9A 00 00-00 00 B3 C4 08 BD 86 FC	...B.....
002B40	F6 B9 46 D4 BC 56 D6 6A-0A 1E 68 93 02 16 50 9A	..F..V.j..h..P.
002B50	00 00 00 00 B3 C4 0A 6A-01 BD 86 FC F6 16 50 FF	.....j.....P.
002B60	76 A2 9A 00 00 00 B3-C4 08 FF 76 A2 9A 00 00	v.....v.....
002B70	00 00 B3 C4 02 C7 86 BA-F6 00 00 C7 B6 4C F7 00	.....L.....
002B80	00 68 FE 00 9A 00 00 00-00 B3 C4 02 6A 00 6A 02	.h.....j..j..
002B90	9A 00 00 00 00 B3 C4 04-6A 00 FF 76 BC 6A FF FF	.....j..v..j..
002BA0	76 BA 9A 00 00 00 B3-C4 08 FF 76 BC 6A 00 9A	v.....v..j..
002BB0	00 00 00 00 B3 C4 04 1E-68 96 02 9A 00 00 00 00	.....h.....
002BC0	93 C4 04 FF 76 BA 6A 00-9A 00 00 00 00 B3 C4 04	....v..j.....
002BD0	1E 58 A4 02 9A 00 00 00-00 B3 C4 04 5B 86 EA F6	.h.....
002BE0	99 2B C2 D1 FB 40 89 86-D4 F6 88 86 DC Fa 99 2B	+.+..@.....+
002BFC	C2 D1 FB 03 F1 00 B9 86-BE F6 FF B6 A0 F2 9A 00	.....
002C00	00 00 00 B3 C4 02 A1 0A-00 99 B9 04 00 F7 F9 BB	.....
002C10	C8 A1 04 00 99 2B C2 D1-F8 03 C1 89 46 D0 2B F6	....+....F.+.
002C20	A1 04 00 99 2B C2 D1 F8-F7 EE 03 46 D0 89 46 AO	....+....F..F.
002C30	56 05 BB 00 00 B3 C4 02-BE D8 BE C2 57 BB FB B9	V.....W..
002C40	FF FF 35 C0 F2 AE F7 D1-49 5F 88 F9 56 0E EB 00	..3...I..V..
002C50	00 B3 C4 02 52 50 57 57-6A 01 68 FA 00 FF 76 A0	...RPWNj.n..V.
002C60	6A 01 6A 00 9A 00 00 00-00 B3 C4 12 46 B3 FE 0B	j..j.....F..
002C70	7E AE 89 BE 5A F7 89 B6-A6 F4 A1 0C 00 99 B9 04	~..Z.....
002C80	00 F7 F9 88 C8 A1 08 00-99 2B C2 D1 FB 03 C1 05	.....+....
002C90	F7 00 89 46 C8 2B F6 A1-0C 00 99 2B C2 D1 FB F7	..F.+....+
002CA0	EE 03 46 C8 89 86 5C F7-56 0E EB 00 00 B3 C4 02	..F..V..V.....
002CB0	88 D8 8E C2 57 8B FB B9-FF FF 33 C0 F2 AE F7 D1	....W....3....
002CC0	49 5F 88 F9 56 0E EB 00-00 B3 C4 02 52 50 57 57	I..V.....RPWN
002CD0	6A 02 FF B6 5C F7 6A 06-6A 01 6A 00 9A 00 00 00	j..V..j..j..j....
002CE0	00 B3 C4 12 46 B3 FE 07-7E AD B9 BE 5A F7 89 B6	....F....~..Z..
002CF0	A6 F4 8B 86 BE F6 03 B6-D8 F6 50 8B 86 D4 F6 03	.....P.....
002D00	86 E0 F6 50 FF B6 BE F6-FF B6 D4 F6 FF 76 BA 6A	..P.....v..j
002D10	00 9A 00 00 00 00 B3 C4-OC FF B6 D2 F6 FF B6 DE	.....
002D20	F6 FF B6 DC F6 FF B6 EA-F6 0E EB 00 00 B3 C4 08	.....
002D30	FF B6 A0 F2 9A 00 00 00-00 B3 C4 02 E9 74 04 83	.....t..
002D40	7E A4 00 74 03 E9 FD 02-FF 76 BC 6A 01 9A 00 00	~..t....v..j..
002D50	00 00 B3 C4 04 68 FF 00-9A 00 00 00 00 B3 C4 02	....h.....
002D60	FF B6 A0 F2 9A 00 00 00-00 B3 C4 02 FF B6 EC F6	.....
002D70	9A 00 00 00 00 B3 C4 02-FF 76 BA 6A 00 9A 00 00	.....v..j..
002D80	00 00 B3 C4 04 FF 76 BA-9A 00 00 00 00 B3 C4 02	.....V.....
002D90	6A 00 6A 02 9A 00 00 00-00 B3 C4 04 6A 01 6A 00	j..j.....j..j..
002DA0	9A 00 00 00 00 B3 C4 04-6A 00 9A 00 00 00 00 B3	.....j.....
002DB0	C4 02 2B F6 8B 9E 54 F7-C1 E3 02 8B 87 7C 03 8B	+.+..T.....
002DC0	97 7E 03 89 86 84 F2 89-96 86 F2 BD 86 B0 F6 89	~.....
002DD0	86 BE F2 BC 96 90 F2 BD-86 C4 F6 89 86 9A F2 8C	.....
002DE0	96 9C F2 BD 46 F4 89 B6-B0 F2 BC 96 82 F2 BD 46	..F.....F
002DF0	F4 B9 B6 7C F2 BC 96 7E-F2 BB BE A0 F2 6A 01 68	..i...~....j..h

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002E00	F0 00 6A 06 FF 76 BC FF-76 BC 9A 00 00 00 00 83	..j..v..v.....
002E10	C4 0A 57 9A 00 00 00 00-83 C4 02 C4 9E 8E F2 26	..W.....&....
002E20	BB 07 03 B6 CC F6 50 C4-9E 9A F2 26 BB 07 03 86	....P...&....
002E30	DA F6 50 FF B6 54 F7 FF-76 BC 6A 00 0E E8 00 00	..P..T..v..j....
002E40	B3 C4 0A 57 6A 00 9A 00-00 00 00 B3-C4 04 FF B6 EC F6 9A 00	..Wj.....j..
002E50	6A 02 9A 00 00 00 00 B3-C4 04 FF B6 EC F6 9A 00	j.....
002E60	00 00 00 B3 C4 02 57 FF-76 BC FF 76 BA 9A 00 00	....W..v..v....
002E70	00 00 B3 C4 06 B9 46 AE-89 56 B6 B3 FE 02 7C 29	....F..v....1)
002E80	B9 96 76 F2 B9 86 74 F2-C7 B6 78 F2 00 00 C7 B6	.v...t...x....
002E90	74 F2 00 00 9B DF AE 74-F2 9B D8 4E AB 9A 00 00	z.....v...N....
002EA0	00 00 04 9E B0 F2 EB 12-90 FF B6 86 F1 7F B6 84	.....
002EB0	F2 FF 76 B0 FF 76 AE 9A-02 00 00 00 00 00 00	..v..v.....i..
002EC0	26 89 07 B3 86 BE F2 02-83 86 FA F2 02 83 B6 B0	5.....
002ED0	F2 02 B3 86 7C F2 02 46-83 FE 03 7F 03 E9 1D FF	....F.....V..
002EE0	B9 B6 A8 F4 88 46 FA 06-9C C8 00 CF B2 56 0A CF	iVB..dV.._V.._RV6.
002EF0	69 56 51 C7 64 56 06 C7-5F B6 05 CF 3F 56 36 CF	*VU..V3..V..V..
002FO0	2A 56 55 CF 1E 56 3E CF-12 56 11 87 07 56 0F CE	.VU..VV.....VV
003F10	DF 56 55 CE De 56 56 C6-8C PD C6 86 91 CE 76 56	S..IVA..V>.TV..1V
002F20	53 CE 6C 56 41 CE 60 56-3E CE 54 56 09 CE 49 56	./.VU..OV2..\$V4..V
002F30	3E CE 3C 56 55 CE 30 56-32 CE 24 56 34 CE 19 56	./.VU..VD..VS..V
002F40	3E CE 00 56 55 B5 F6 56-44 CD DD 56 24 CD AB 58	./.V/.VV/.c..G..
002F50	21 85 92 56 2F 85 76 56-2F C5 63 9F C5 51 9F C5	F..DV1..V-.V-..
002F60	46 9F CD 30 56 21 85 1A-56 2D 24 FE B6 20 C4 EC	.....
002F70	9F C4 DD 9F C4 D2 9F CC-CA 56 55 CC A0 58 4E C4	.....VU..VN..VN.
002FB0	9D 9D CC 94 56 3E CC 87-56 4E C4 84 2D CC 78 56	....V>.VN....EV
002F90	3E CC 6E 56 24 CC 5C 56-3E CL 50 58 55 CC 39 56	>.nV\$.V>.PVU..9V
002FA0	1F CC 2E 56 3F CC 1B 56-0E C4 16 9D CC 01 56 3F	...V?..V.....V?
002FB0	11 A0 B4 03 01 F4 14 2B-46 FB 89 46 FC BB 46 FA	.....+F..F..F..
002FC0	3B 46 FB 7E 03 B8 46 FB-B9 B6 52 F7 CB CO 75 06	:F..~..F...R...U..
002FD0	C7 86 52 F7 01 00 6B 46-FC 64 99 F7 BE 52 F7 B9	..R...kF.d...R..
002FE0	46 FE 6A 00 9A 00 00 00-00 83 C4 02 FF B6 EC Fa	F..j.....
002FF0	9A 00 00 00 00 B3 C4 02-6A 01 68 FE 00 6A 06 FF	.....j.h..j..
003000	76 BC FF 76 BC 9A 00 00-00 00 B3 C4 04 6A 00 9A 00	v..v.....j..
003010	76 BC 6A FF FF 76 BA 9A-00 00 00 B3 C4 04 6A 00 9A 00	j.....j....
003020	01 6A 01 9A 00 00 00 00-83 C4 04 6A 00 9A 00 00	.....
003030	00 00 B3 C4 02 FF B6 A0-F2 9A 00 00 00 00 B3 C4	.....
003040	02 C7 B6 BA F6 01 00 FF-B6 4C F7 BD 45 DB 16 50	.....L..F..P..
003050	BD B6 FC F6 16 50 9B D9-B6 F8 F6 83 EC 08 8B DC	....P.....
003060	9B 36 DD 1F 9B D9 86 4E-F7 B3 EC 08 8B DC 9B 36	6.....N.....6
003070	DD 1F 90 9B FF 36 OC 00-FF 36 0A 00 FF B6 54 F7	....6...6....T..
003080	FF B6 CC F6 FF B6 DA F6-8D 46 F4 16 30 0E E8 00	.....F..P..
003090	00 B3 C4 28 0E E8 00 00-FF 76 B6 FF 76 CC FF 76	...(<....v..v..V
0030A0	CA FF 76 D2 FF B6 A4 F4-FF 76 B8 FF 36 0C 00 FF	.v.....v..6...
0030B0	36 0A 00 0E EB 00 00 B3-C4 10 6B FF 00 9A 00 00	6.....h....
0030C0	00 00 B3 C4 02 C7 B6 C2-F6 00 00 FF B6 54 F7 6A	.....T..j
0030D0	00 FF 76 A4 0E E8 00 00-83 C4 06 6A 00 6A 02 9A	..v.....j.j..

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0030E0	00 00 00 00 83 C4 04 FF-B6	A0 F2 9A 00 00 00 00 00	.....T..
0030F0	83 C4 02 FF B6 CC F6 FF-B6	DA F6 FF B6 54 F7 FF	.....j....j....
003100	76 BA 6A 00 0E E8 00 00-B3	C4 0A 6A 00 9A 00 00	v.j.....j....
003110	00 00 83 C4 02 83 7E A4-01	74 03 E9 65 01 C7 46	.....~.t.e.F
003120	A4 01 00 E9 5D 01 90 83-BE	BA F6 00 75 03 E9 D5	...j.....u...
003130	F3 9B DF 46 FA 83 EC 04-BB	DC 9B 36 D9 1F 9B DF	..F.....6....
003140	46 FB 83 EC 04 8B DC 9B-36	D9 1F 90 9B FF B6 CC	F.....6.....
003150	F6 FF B6 DA F6 0E E8 00-00	83 C4 0C B0 3E 04 00	.....>..
003160	00 74 18 7A 00 00 00 00-0B	C0 75 0F 6A 49 6A 43	.t.....u.ji;jc
003170	1E 68 B1 02 0E E8 00 00-B3	C4 08 B0 3E 04 00 00	.h.....~...
003180	75 03 E9 E0 00 C7 86 AE-F4	00 00 BD 46 DB 8B D8	u.....F...
003190	BB FF 8C D0 8E C0 E9 FF-FF	33 C0 F2 AE F7 D1 49	.....3....I
0031A0	74 2B 6B 06 7A 03 18 BB-F8	BB B6 A6 F4 BA 42 D8	tk.z.....B.
0031B0	BB DE 03 DF 03 DD 36 BB-87	60 F7 46 BB C6 BD 4E	.....6...F..N
0031C0	D8 BB D9 BB DO 57 BB FB-8C	DO B9 FF FF 33 C0 F2	....W.....3..
0031D0	AE F7 D1 49 5F 3B D1 72-D4	89 B6 A6 F4 FF 06 7A	..l_t.r.....z
0031E0	03 5A 01 1E 68 EC 02 FA-00	00 00 00 83 C4 06 89	j..h.....
0031F0	46 A2 40 75 10 1E 68 F0-02	6A 01 9A 00 00 00 00	F..@u..h..j....
003200	83 C4 06 EB 55 8D 86 FC-F6	BB D8 BB FE 8C D0 8E	....U.....
003210	C0 B9 FF FF 33 C0 F2 AE-F7	D1 49 51 8D 86 FC F6	....3....10...
003220	16 50 FF 76 42 9A 00 00-00	00 83 C4 08 8D 86 FC	.P.v.....
003230	F6 B9 46 D4 8C 56 D6 6A-0A	1E 68 1B 03 16 50 9A	..F..V.j.h..P.
003240	00 00 00 00 83 C4 0A 6A-01	8D 86 FC F6 16 50 FF	.....j.....P.
003250	76 A2 9A 00 00 00 00 83-C4	08 FF 76 A2 9A 00 00	v.....~v..
003260	00 00 83 C4 02 C7 86 BA-F6	00 00 D7 85 4C F7 01	.....L..
003270	00 6A 01 0E E8 00 00 83-C4	02 E9 89 F2 C7 85 D6	.j.....
003280	F6 04 00 83 BE D6 F6 03-7F	03 E9 8E F2 A1 00 00	.....
003290	0B 06 02 00 74 10 FF 36-02	00 FF 36 00 00 9A 00	....t..6...6...
0032A0	00 00 00 83 C4 04 1E 68-1E	03 9A 00 00 00 00 83	.....h.....
0032B0	C4 04 1E 68 2B 03 9A 00-00	00 00 83 C4 04 9A 00	...h+.....
0032C0	00 00 00 1F 5E 5F C9 CB-90	C8 00 00 00 1E BB 00	....^.....
0032D0	00 BE DB 83 7E 06 00 75-06	1E 68 FB 03 EB 04 1E	....~.u.h...
0032E0	68 2E 04 6A 01 9A 00 00-00	00 83 C4 06 9A 00 00	h..j.....
0032F0	00 00 1E 68 62 04 9A 00-00	00 00 83 C4 04 BB 00	...hb.....
003300	00 BA 00 00 52 50 1E 68-90	04 6A 00 6A 01 9A 00	...RP.h..j.j..
003310	00 00 00 83 C4 0C BB 00-00	BA 00 00 52 50 1E 68	.....RP.h
003320	BF 04 6A 00 6A 02 9A 00-00	00 00 83 C4 0C BB 00	..j.j.....
003330	00 BA 00 00 52 50 1E 68-EE	04 6A 00 6A 03 9A 00	...RP.h..j.j..
003340	00 00 00 83 C4 0C BB 00-00	BA 00 00 52 50 1E 68	.....RP.h
003350	1D 05 6A 00 6A 04 9A 00-00	00 00 83 C4 0C BB 00	..j.j.....
003360	00 BA 00 00 52 50 1E 5A-9C	43 01 CB AB 56 10 C7	...RP.Z.C..V..
003370	AB 56 10 CF A0 56 38 C7-99	9D CB 93 56 10 C7 90	.V...VB....V...
003380	56 10 CF 88 56 38 C7 81-9D	CB 7B 56 10 C7 78 56	V...VB...{V..xV
003390	10 CF 70 56 38 C7 69 9D-CB	63 56 10 C7 60 56 10	..pVB.i..cV..V.
0033A0	CF 58 56 38 C7 51 9D CB-4B	56 10 C7 48 56 10 CF	XVB.Q..KV..HV..
0033B0	40 56 1E C7 3D 9D CF 37-56	15 CF 2F 56 25 C7 2A	@V..=.7V..//V%.*

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0033D0	9D C7 24 9D CB 18 9D CF-08 56 47 CF 00 56 14 C6	..\$.....VB..V..
0033D0	FD 9D CE F4 56 14 C6 F1-9D CE E8 56 18 C6 E5 9D	...V.....V....
0033E0	C6 E1 9D C6 DB 9D C6 D7-9D 86 BE 56 45 CE A7 56	.....VE..V
0033F0	1F CE 9C 56 3F CE 89 56-0E C6 B4 9D CE 6F 56 3F	..V?..V....oV?
003400	CE 45 56 25 C6 40 9D CE-31 56 30 C6 2E 9D C6 28	.EV%.@..1VO....
003410	9D C5 ED 9D C5 C6 9D 85-BF 56 4F C5 BB 9D CD AD	.....VO....
003420	56 42 C5 A7 9D 85 A0 56-17 C5 94 56 06 C5 91 56	VB.....V...V...V
003430	02 C5 90 56 03 C5 87 56-05 C5 94 56 02 C5 83 56	...V...V...V...V
003440	03 C5 7A 56 05 CD 57 56-34 85 4F 56 54 CD 35 56	..EV..WV4.DVT..5V
003450	55 CD 29 56 3E 85 1F 56-4A CD 07 56 34 84 FE 56	U.YV...VJ..VA..V
003460	3A C4 FA 9F C4 F6 9F 84-0F 56 33 84 D6 56 13 C4	.....V5..V..V..
003470	C3 9F C4 BF 9F C4 BE 56-16 C4 86 56 02 C4 B7 56	...V...V...V...V
003480	03 C4 AD 56 05 C4 AA 56-02 C4 A7 56 03 C4 9F 56	..V...V...V...V
003490	05 CC 83 56 56 CC 77 56-34 CC 5D 56 41 CC 61 56	..VU.WV4.mVA.eV
0034A0	24 CC 4F 56 36 CC 3A 56-55 CC 2E 56 53 E4 A0 1D	\$,0VY.:VU..VB...
0034B0	03 01 A4 18 68 4C 05 6A-00 6A 05 9A 00 00 00 00	...HL.i...A....
0034C0	B3 C4 OC BB 00 00 BA 00-00 52 51 1E 56 7B 05 6A	.....RP.h <i>C</i> ..
0034D0	00 6A 06 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	.j.....
0034E0	00 52 50 1E 68 AA 05 6A-00 6A 07 9A 00 00 00 00	RF.h...j...j....
0034F0	B3 C4 OC BB 00 00 BA 00-00 52 50 1E 56 09 05 6A	.....RP.h...j..
003500	00 6A 08 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	..j.....
003510	00 52 50 1E 68 08 06 6A-00 6A 09 9A 00 00 00 00	.....RP.h7..j
003520	B3 C4 OC BB 00 00 BA 00-00 52 50 1E 68 37 06 6A	.j.....
003530	00 6A 0A 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	RF.hf.j...j....
003540	00 52 50 1E 68 66 06 6A-00 6A 08 9A 00 00 00 00	.....RF.h...j
003550	B3 C4 OC BB 00 00 BA 00-00 52 50 1E 68 95 06 6A	.j.....
003560	00 6A 0C 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	RF.h...j.j....
003570	00 52 50 1E 68 C4 06 6A-00 6A 0D 9A 00 00 00 00	.....RF.h...j
003580	B3 C4 OC BB 00 00 BA 00-00 52 50 1E 58 F3 06 6A	.j.....
003590	00 6A 0E 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	RF.h...j.j....
0035A0	00 52 50 1E 68 22 07 6A-00 6A 0F 9A 00 00 00 00	.....RP.h <i>Q</i> .j
0035B0	B3 C4 OC BB 00 00 BA 00-00 52 50 1E 68 51 07 6A	.j.....
0035C0	00 6A 10 9A 00 00 00 00-83 C4 5C BB 00 00 BA 00	RF.h...j.j....
0035D0	00 52 50 1E 68 80 07 6A-00 6A 11 9A 00 00 00 00	.....
0035E0	B3 C4 OC 1F C9 CB C8 00-00 00 1E BB 00 00 BE DB	~.~.~.F...^..
0035F0	B3 7E 06 0B 7E 05 C7 46-06 0B 00 8B 5E 06 C1 E3	.....
003600	02 BB B7 DA 07 BB 97 DC-07 1F C9 CB C8 00 00 00	.....
003610	1E BB 00 00 BE DB B3 7E-06 07 7E 05 C7 46 06 07	.....^..~.F..
003620	00 BB 5E 06 C1 E3 02 BB-87 0A 06 BB 97 0C 08 1F	..P.....F..
003630	C9 CB C8 50 00 00 1E BB-00 00 BE DB BB 46 06 0B	t.=.t8.G.^..u.
003640	00 74 07 3D 01 00 74 38-E8 47 B3 7E 08 00 75 14	.v..h*..F..P..
003650	FF 76 0A 1E 68 2A 08 BD-46 B0 16 50 9A 00 00 00	....~..u'..v..hF
003660	00 B3 C4 0A B3 7E 08 01-75 27 FF 76 0A 1E 68 46	.F..F.....
003670	08 BD 46 B0 16 50 9A 00-00 00 00 B3 C4 0A EB 11	.hb..F..P.....
003680	1E 68 62 08 BD 46 B0 16-50 9A 00 00 00 00 B3 C4 06	.F..Pj.....
003690	08 BD 46 B0 16 50 6A 01-9A 00 00 00 00 B3 C4 06	..

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0036A0 1F C9 CB 90 C6-12 02 00-57 56 1E BB 00 00 JE DB .....WV.....  
 0036B0 B8 6E 0B 89 46 F4 8C 5E-F6 9B DF 46 0A 9B DC 46 ..n..F...^...F...F  
 0036C0 14 9A 00 00 00 00 89 46-F0 9B DF 46 0C 9B DC 46 .....F...F...F  
 0036D0 1C 9A 00 00 00 00 89 86-0E FE 2B 06 08 00 99 F7 .....+.....  
 0036E0 7E 12 05 02 00 89 46 FC-BB 46 F0 2B 06 06 00 99 .....F...F.+....  
 0036F0 F7 7E 10 05 03 00 89 46-F8 9B DF 46 0A 9B DF 46 ..^.....F...F...F  
 003700 10 9B DE F9 9B DC 46 14-9B D9 9E 08 FE 9B DF 46 .....F.....F  
 003710 0C 9B DF 46 12 9B DE F9-9B DC 46 1C 9B D9 9E 00 ...F.....F.....  
 003720 FE 9B D9,B6 08 FE 9A 00-00 00 00 B9 B6 04 FE 9B .....  
 003730 D9 B6 00 FE 9A 00 00 00-00 89 B6 FE FD 1E 68 70 .....P.....  
 003740 08 BD B6 10 FE 1e E0 9A-00 00 00 00 B3 C4 08 FF .....RP.....  
 003750 B6 04 FE 0E EB 00 00 B3-C4 02 52 50 FF B6 FE FD .....RP...&W.  
 003760 0E ES 00 00 B3 C4 02 52-50 C4 5E 05 26 FF 77 06 .....RP...&W.  
 003770 26 FF 77 04 1E 68 9D 08-BD B6 60 FE 16 50 9A 00 &W...h.....P..  
 003780 00 00 00 B3 C4 14 FF 76-0E 1E 68 C6 08 8D 86 B6 .....v...h.....  
 003790 FE 16 50 9A 00 00 00 00-83 C4 0A FF 76 F0 C4 5E ..F.....V..  
 0037A0 06 26 FF 77 0A 26 FF 77-08 1E 68 F3 08 8D 86 00 &W...&W...h.....  
 0037B0 FF 16 50 9A 00 00 00 00-83 C4 0E FF B6 0E FE C4 ..P.....  
 0037C0 5E 06 26 FF 77 02 26 FF-37 1E 68 1B 09 A8 9C 6D &W...&W...7...h...m  
 0037D0 01 C7 17 9D CE 00 56 0E-C6 F7 9D CE EO 56 0E C6 .....V.....V..  
 0037E0 D7 9D CE CB 56 0E C6 C2-9D 86 AE 56 2F 86 A1 56 .....V.....V/V...V  
 0037F0 2D CE 94 56 0E C6 8B 9D-CE 81 56 51 C6 7B 56 05 ..sVQ..mV..hV..dV.  
 003800 CE 73 56 51 C6 5D 56 05-C6 68 56 05 C6 64 56 05 ..aV..IV..VV..TV.  
 003810 C6 61 56 05 C6 5D 56 05-C6 59 56 05 C6 54 56 05 ..PV..MV..IV..EV.  
 003820 C6 50 56 05 C6 4D 56 05-C6 47 56 05 C6 45 56 05 ..V.....V.....  
 003830 C6 39 9F C6 28 9F CE 1E-56 51 C6 19 56 05 C6 15 ..9...1...VQ..V...  
 003840 56 05 CE 0E 56 51 C6 09-56 05 C6 05 56 05 C5 FD V...VQ..V...V...  
 003850 9D C9 F8 9D CD ES 56 25-CD D6 56 0E C5 CE 9D CD .....VX..V.....  
 003860 C3 56 0E C5 BB 2D CD A9-56 0E C5 A1 9D C9 84 9D ..V.....V.....  
 003870 C5 79 9D C5 75 9D C5 5E-9D C5 53 9D C5 4F 9D C9 ..y...u...^...S...D..  
 003880 38 9D CD 28 56 38 C5 21-9D C9 1B 56 10 C5 18 56 B..(VB.!..V...V..  
 003890 10 CD 10 56 38 C5 09 9D-C9 03 56 10 C5 00 56 10 ..VB.....V...V..  
 0038A0 CC F8 56 38 C4 F1 9D C8-E8 56 10 C4 E8 56 10 CC ..VB.....V...V..  
 0038B0 E0 56 38 C4 D9 9D C8 D3-56 10 C4 D0 56 10 CC CB ..VB.....V...V...  
 0038C0 56 38 C4 C1 9D C8 BB 56-10 C4-BB 56 10 CC B0 56 VB.....V...V...VB  
 0038D0 38 C4 A9 9D C8 A3 56 10-C4 A0 56 10 CC 98 56 38 B.....V...V...VB.  
 0038E0 C4 91 9D C8 BB 56 10 C4-BB 56 10 CC B0 56 38 C4 ..V...V...V...V...  
 0038F0 79 9D C8 73 56 10 C4 70-56 10 CC 68 56 38 C4 61 y..sV..pV..hV.a  
 003900 9D C8 5B 56 10 C4 58 56-10 CC 50 56 38 C4 49 9D ..IV..XV..PV8.I.  
 003910 C8 43 56 10 C4 40 56 10-CC 38 56 38 C4 31 9D CB ..CV..@V..BV8.1..  
 003920 2B 56 10 C4 28 56 10 CC-20 56 38 C4 19 9D CB 13 +V..(V.. VB.....  
 003930 56 10 C4 10 56 10 CC 08-56 38 C4 01 9D B1 A0 B5 V...V...VB.....  
 003940 03 01 BD 1B 6D 86 50 FF-16 50 9A 00 00 00 00 83 ....P..P.....  
 003950 C4 0E 1E 69 42 09 BD 46-A0 16 50 9A 00 00 00 00 ..hB..F..P.....  
 003960 83 C4 08 2B F6 8D 86 10-FE B9 B6 F6 FD BC 96 F8 ...+.....  
 003970 FD FF B6 F8 FD FF B6 F6-FD BD 44 0C 50 9A 00 00 .....D.P...

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0039B0	00 00 B3 C4 06 B3 B6 F6-FD 50 46 83 FE 06-7C E1	.....FF...I.
003990	89 B6 06 FE 80 3E 04 00-00 74 18 9A 00 00 00 00	....>..t.....
0039A0	08 C0 75 0F 6A 49 6A 43-1E 68 6F 09 0E EB 00 00	..u.jIjC.ho....
0039B0	83 C4 08 B0 3E 04 00 00-75 03 E9 6C 01 6A 01 1E	....>...u..l.j..
0039C0	68 AA 09 9A 00 00 00 00-B3 C4 06 89 86 0C FE 40	h.....@
0039D0	75 11 1E 68 AE 09 6A 01-7A 00 00 00 00 00 83 C4 06	u..h..j.....
0039E0	E9 3A 01 83 3E 6E 0A 00-75 03 E9 9E 00 1E 68 D9	....n.u...h.
0039F0	09 FF 76 26 FF 76 24 9A-00 00 00 00 83 C4 08 89	..v&.v\$.....
003A00	46 F2 1E 68 E6 09 03 46-24 BB 56 26 52 50 9A 00	F...n...F\$,V&RP..
003A10	00 00 00 B3 C4 08 01 46-F2 1E 68 F2 09 8B 46 F2	....F...h...F.
003A20	03 46 24 BB 56 26 52 50-9A 00 00 00 00 B3 C4 08	.F\$.V&RP.....
003A30	01 46 F2 1E 68 05 04 8E-46 F2 03 46 24 BB 56 26	.F..h...F..F\$.V\$
003A40	52 50 9A 00 00 00 00 B3-C4 08 01 46 F2 1E 68 15	RP.....F..n.
003A50	0A 8B 46 F2 03 46 24 BB-56 26 52 50 9A 00 00 00	..F..F\$.V&RP....
003A60	00 B3 C4 08 01 46 F2 C4-7E 24 B9 FF FF 33 C0 F2	....F..V\$...3..
003A70	AE F7 D1 49 51 0c FF 7e-24 FF B6 0C FE 9A 00 00	...10..V\$.....
003A80	00 00 B3 C4 08 C7 06 8E-0A 00 00 03 7E 2C 00 74	....n.....t
003A90	04 FF 06 6C 0A C4 5E 0e-2e FF 77 0A 26 FF 77 08	..1...&..H..&..W.
003AA0	26 FF 77 06 26 FF 77 04-FF B6 FE FD 0E EB 00 00	&..W..&..H.....
003AB0	B3 C4 02 50 50 FF B6 04-FE 0E EB 00 00 00 B3 C4 02	..RP.....
003AC0	52 50 FF 76 F6 FF 76 F4-FF 38 6C 0A 1E 68 24 0A	.V&.V\$.....
003AD0	FF 76 26 FF 76 24 9A 00-00 00 00 B3 C4 1E C4 5E	.&..W..&..W..&..W
003AE0	06 26 FF 77 0A 26 FF 77-08 26 FF 77 06 26 FF 77	.....RP..
003AF0	04 FF B6 FE FD 0E EB 00-00 B3 C4 02 51 50 FF B6	.....RP..HB..
003B00	04 FE 0E EB 00 00 B3 C4-02 52 50 1E 68 42 0A FF	V*.V(.....
003B10	76 2A FF 76 28 9A 00 00-00 00 B3 C4 18 FF B6 0C	.....F..F..
003B20	FE 9A 00 00 00 00 B3 C4-02 BB 46 0C 03 46 0E 05	..F.=..^..F.+F.
003B30	10 00 B9 46 FA 3D EE 00-7E 0C BB 46 0C 2B 46 0E	..F..F..F.=..^..
003B40	2D 06 00 B9 46 FA BB 46-0A 89 46 FE 3D 0C 00 7D	..F....^....^..F.
003B50	05 C7 46 FE 0C 00 81 7E-FE F4 00 7E 05 C7 46 FE	..j..s.....j..
003B60	F4 00 6A 00 6A 01 9A 00-00 00 00 B3 C4 04 6A 00	.....F.....
003B70	9A 00 00 00 00 B3 C4 02-C7 B6 06 FE 06 00 BB 46	..V.....
003B80	06 BB 56 08 05 04 00 89-B6 F6 FD 89 96 FB FD BE	d..\....T.....
003B90	64 0A BF 5C 0A C7 B6 F0-FD 54 0A C7 86 EE FD 04	....&.....
003BA0	00 C4 9E F6 FD 26 BB 07-99 89 B6 FA FD 89 96 FC	RPj.j..4j...F.
003BB0	FD 52 50 6A 01 6A 01 FF-34 6A 00 BB 05 03 46 FA	P.....F.Pj.j..
003BC0	50 BB 9E F0 FD BB 07 03-46 FE 50 6A 01 6A 00 9A	.....u.^..
003BD0	00 00 00 00 B3 C4 14 B3-B6 F6 FD 02 B3 C6 02 B3	.....
003BE0	C7 02 B3 B6 F0 FD 02 FF-BE EE FD 75 B4 1F 5E 5F	.....F.....
003BF0	C9 CB 90 CB 0C 00 00 1E-BB 00 00 8E D8 C7 46 FD	..F...F...F..
003C00	01 01 C7 46 FB F1 00 C7-46 FA 00 00 C7 46 F4 00	..F...F...h....
003C10	00 C7 46 F6 01 01 C7 46-FE 00 00 68 FE 00 9A 00	....j..j.....
003C20	00 00 00 B3 C4 02 6A 00-6A 02 9A 00 00 00 00 B3	..j.....j..j..
003C30	C4 04 6A 00 9A 00 00 00 00-B3 C4 02 6A 01 6A 00	j..j..j..v..v..v..
003C40	6A 00 6A 00 6A 00 FF 76-0C FF 76 0A FF 76 08 FF	v..j.....j..
003C50	76 06 6A 02 9A 00 00 00-00 B3 C4 14 6A 00 9A 00	v..j.....j..

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003C60	00 00 00 B3 C4 02 6A 01-6A 00 6A 00 6B 01 01 6A	.....j.j.j.h..j
003C70	00 FF 76 0C FF 76 0A FF-76 08 FF 76 06 6A 03 9A	..v..v..v..v..j..
003C80	00 00 00 00 83 C4 14 6A-00 9A 00 00 00 00 83 C4	.....j.....
003C90	02 6A 01 6A 00 6B F1 00-6B 01 01 6A 00 FF 76 0C	.j.j.h..h..j..v.
003CA0	FF 76 0A FF 76 08 FF 76-06 6A 01 9A 00 00 00 00	.v..v..v..v..j..
003CBO	B3 C4 14 1F C9 CB 90 1E-BB 00 00 8E DB 6A 00 6A	.....j.....
003CC0	01 9A 00 00 00 00 83 C4-04 6A 00 9A 00 00 00 00	..j.....h..
003CD0	B3 C4 02 6A 00 9A 00 00-00 00 83 C4 02 6B EF 00	..v+..V6..V>..V6
003CE0	6A 00 9A 00 00 00 00 83-C4 04 6B F0 00 6B FF 01	j.....h..h..
003CF0	94 00 00 00 00 00 5A 9C D3-00 CF AD 56 49 CF 9F 56	....Z....VI..V
003D00	48 CF 92 56 32 CF 88 56-1D CF 7E 56 3E CB 75 9B	H..V2..V..V>..V6
003D10	CF 6B 56 2B CF 48 56 53-CF 3C 56 2B CF 1B 56 53	.nV+.FVS.<V4..V6
003D20	CF 11 56 2B CE F1 56 53-CE E7 56 3E CE DB 56 55	..V+..V6..V>..V6
003D30	CA B5 9D CE 8C 56 33 C6-55 9D C6 4F 9D C6 4C 9D	....V3..U..O..L.
003D40	CE 2D 56 1D CE 23 56 3E-CD DE 56 1F CD 02 56 0E	..V..#V>..V..V..
003D50	C5 C9 9D 85 C0 56 2D B5-B3 56 2F CD 93 56 0E C5	....V..V..V..V..
003D60	8A 70 C5 86 9D 85 77 56-2D 85 6A 56 2F C5 4F 9D	....WV..JV..O..
003D70	C5 43 9D C0 3A 56 3F CD-19 56 0E C8 0B 9D CC FF	..C..:V2..V.....
003D80	56 0E C4 F1 9D CC E5 56-0E C4 07 9D CC DB 56 0E	V.....V.....V..
003D90	C4 00 9D CC B4 56 0E C4-AB 9D C4 A1 9D CC 95 56	....V.....V
003DA0	25 04 90 9D CC B0 56 30-C4 7D 9D C4 71 9D B4 6A	Z.....VO.3..O..J
003DB0	56 4F C4 66 9D CC 58 56-42 C4 52 9D CC 3A 56 22	VO.f..XVB.R..:V"
003DC0	CC 18 56 0E C4 10 9D CC-07 56 0E BA A0 B6 03 01	..V.....V.....
003DD0	6E 1F B3 C4 04 6B DF 01-6B FF 00 9A 00 00 00 00	n....h..h.....
003DE0	B3 C4 04 6B 00 6B 00 01-9A 00 00 00 00 83 C4 04	..i.n.....
003DF0	1F C5 1E B6 00 00 8E DB-1E 6B 70 0A 6A 07 6A 07	.....hp..j..j..
003E00	6A 01 6A 0E 6A 03 6A 01-6A 00 9A 00 00 00 00 83	j..j..j..j..j..j..
003E10	C4 12 1E 6B 78 0A 6A 04-6A 0A 6A 02 6A 0E 6B FD	..hx..j..j..j..j..h..
003E20	01 6A 01 6A 00 9A 00 00-00 00 83 C4 12 1E 6B B3	.j..j..-----h..
003E30	0A 6A 0A 6A 0A 6A 01 6B-FF 00 6A 03 6A 01 6A 00	.j..j..j..h..j..j..j..
003E40	9A 00 00 00 00 83 C4 12-1E 6B 8E 0A 6A 08 6A 08	.....h..j..j..j..
003E50	6A 02 6B FF 00 6B FD 01-6A 01 6A 00 9A 00 00 00	j.h..h..j..j..j..
003E60	00 B3 C4 12 1F CB C8 12-00 00 57 56 1E BB 00 00	.....WV..
003E70	8E DB BB 46 0A B9 46 FE-BB 46 0E B9 46 F2 C7 46	...F..F..F..F..F..F
003E80	F4 00 00 BB 46 10 39 46-F2 7F 6A BB 46 FE B9 46	...F..9F..j..F..F
003E90	F0 BB 46 10 2B 46 0E 40-B9 46 EE 01 46 F4 BB 76	..F.+F..@.F..F..V
003EA0	F2 BB 46 F0 B9 46 FA 56-0E EB 00 00 83 C4 02 BB	..F..F..V.....
003EB0	D8 8E C2 57 BB FB B9 FF-FF 33 C0 F2 AE F7 D1 49	..W.....3.....I
003EC0	5F BB F9 56 0E EB 00 00-83 C4 02 52 50 57 57 6A	..V.....RPWWJ
003ED0	01 6B F3 00 FF 76 FA 6A-01 6A 00 9A 00 00 00 00	..h..v..j..j.....
003EE0	B3 C4 12 46 BB 46 06 01-46 F0 3B 76 10 7E B2 B9	..F.F..F.;v..~..
003EF0	7E FB B9 76 F2 BB 46 0A-B0 C4 01 B9 46 FE BB 46	~..v..F.....F..F
003FO0	0E B9 46 F2 C7 46 F4 00-00 BB 46 10 39 46 F2 7F	..F..F....F..9F..
003F10	6A BB 46 FE B9 46 EE BB-46 10 2B 46 0E 40 B9 46	j..F..F..F..+F..@..F
003F20	F0 01 46 F4 BB 76 F2 BB-46 EE B9 46 FA 56 0E E8	..F..v..F..F..V..
003F30	00 00 83 C4 02 BB D8 8E-C2 57 BB FB B9 FF FF 33	.....W.....3

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003F40	C0 F2 AE F7 D1 49 5F 8B-F9 56 0E EB 00 00 83 C4	....I..V.....
003F50	02 52 50 57 57 6A 01 68-F3 00 FF 76 FA 6A 01 6A	.RPWWj.h...v.j.j
003F60	00 9A 00 00 00 00 83 C4-12 46 BB 46 06 01 46 EE	....F.F..F..
003F70	3B 76 10 7E B2 89 7E F8-B9 76 F2 8B 46 0C 05 F7	;v.~.~.v..F...
003F80	00 89 46 FC 8B 46 12 89-46 F2 C7 46 F4 00 00 88	.F..F..F..F...
003F90	46 14 39 45 F2 7F 6A 8B-46 FC 89 45 EE BB 46 14	F.9F.j.F..F..F.
003FA0	2B 46 12 40 89 46 F0 01-46 F4 8B 76 F2 8B 46 EE	+F.B.F..F..v..F.
003FB0	89 46 F6 56 0E EB 00 00-83 C4 C2 9B DB 9E C2 57	.F.V.....W
003FC0	9B FB B9!FF FF 33 C0 F2-AE F7 01 49 5F 8B FF 56	....S....I..V
003FD0	0E E2 00 00 83 C4 02 52-50 57 57 6A 01 FF 76 F6	....RWWj.v.v
003FE0	82 FC 00 6A 01 6A 00 7A-00 00 00 00 83 C4 12 4c	n..S..J.....P
003FF0	8E 46 08 01 46 EE 3B 76-14 7E 5E 89 7E FB 89 1e	.F..F..F..F..F..F.
004000	F2 8B 46 0C 69 46 FC 8B-46 12 86 45 F2 C7 46 F4	.F..F..F..F..F..F.
004010	00 00 8B 46 14 39 45 F2-7F 6A 8B 46 FC 89 46 EE	.F..F..F..F..F..F..V.
004020	89 46 14 2B 46 12 40 89-46 F0 01 46 F4 8B 76 F2	.F..F..F..F..F..V..
004030	8B 46 EE 89 46 F6 58 0E-8B 00 00 83 C4 C2 9B DB	.F..F..F..V..
004040	BE C2 57 8B FB B9 FF FF-33 C0 F1 AE F7 D1 49 5F	....W....S....J
004050	2B F4 56 0E EB 00 00 82-C4 02 52 50 57 57 6A 01	....W....RWWj.v
004060	FF 76 F6 8B FC 00 6A 01-5A 00 9A 00 00 00 00 83	.v.b..J..J.....
004070	C4 12 46 BB 46 08 01 4c-EE 3B 76 14 7E B2 89 7E	.F..F..F..F..V..V..
004080	F8 B9 76 F2 1F 5E 5F CP-CB 90 C8 00 00 00 00 57 58	....V..V..V..V..V..
004090	1E BB 00 00 8E DB FF 76-0B 6A 01 9A 00 00 00 00 00	....V..V..V..V..V..
0040A0	S3 C4 04 FF 76 06 9A 00-00 00 00 83 C4 02 85 7E	.ut.6...6.....
0040B0	66 01 75 74 FF 36 14 00-FF 36 12 00 9A 00 00 00	....6.....
0040C0	00 83 C4 04 FF 36 16 00-7A 00 00 00 00 83 C4 02	....6.....6..V..
0040D0	BB 34 12 00 81 C6 01 01-FF 36 14 00 56 9A 00 00	....6.....
0040E0	00 00 83 C4 04 FF 36 16-00 9A 00 00 00 00 00 83 C4	....6.....
0040F0	02 8E 3E 14 06 81 C7 F1-00 57 FF 36 12 00 9A 00	....6.....W.6....
004100	00 00 00 83 C4 04 FF 36-16 00 9A 00 00 00 00 83	....6.....6..
004110	C4 02 57 56 9A 00 00 00-00 83 C4 04 FF 36 16 00	....V..V..V..V..
004120	9A 00 00 00 00 83 C4 02-FF 76 0E FF 76 0C 9A 00	....V..V..V..V..
004130	00 00 00 83 C4 04 FF 76-0A 9A 00 00 00 00 83 C4	....V..V..V..V..
004140	02 BB 76 0C 81 C6 01 01-FF 76 0E 56 9A 00 00 00	....V..V..V..V..
004150	00 83 C4 04 FF 76 0A 9A-00 00 00 00 83 C4 02 BB	....V..V..V..V..
004160	7E 0E 81 C7 F1 00 57 FF-76 0C 9A 00 00 00 00 83	....W.V..V..V..
004170	C4 04 FF 76 0A 9A 00 00-00 00 83 C4 02 57 56 9A	....V..V..V..V..V..
004180	00 00 00 00 8F 9C C0 00-CF AE 56 48 CF A4 56 29	....VH..V).EVH.HV)
004190	CF 99 56 48 CF 86 56 29-CF 7B 56 48 CF 68 56 29	.JVH.DV).L..CVH.
0041A0	CF 5D 56 48 CF 4F 56 29-C7 4C 9F CF 43 56 48 CF	9V).6..-VH.*!..!
0041B0	39 56 29 C7 36 9F CF 2D-56 48 C7 2A 9F C7 21 9F	....V..V..V..V..V..
0041C0	CF 18 56 29 C7 15 9F CF-0C 56 48 C7 08 9F C7 00	....V..V..V..V..V..
0041D0	9F CE F7 56 29 C6 F4 9F-CE EB 56 48 C6 E8 9F C6	....V..V..V..V..V..
0041E0	E4 9F CE D5 56 1D CE CA-56 3E CA C0 9D CE 99 56	....V..V..V..V..V..V..
0041F0	21 86 83 56 2F 86 67 54-2F CE 16 56 21 86 00 56	....V..V..V..V..V..V..
004200	2F 85 E4 56 2F CD 90 56-21 85 7A 56 2D 85 5E 56	....V..V..V..V..V..V..
004210	2D CD 0A 56 21 84 F4 56-2D 84 DB 56 2D 88 9C 9D	....V..V..V..V..V..V..

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004220	CC	BB	56	4B	C4	78	9D	CC-6F	56	4B	C4	5D	9D	CC	54	.VK.x..VK.J..T
004230	56	4B	C4	42	9D	CC	39	56-4B	C4	28	9D	C8	22	9D	CC	VK.B..9VK.("".
004240	17	56	49	CC	0A	56	4B	CF-A0	9C	00	01	20	23	83	C4	.VI..VH....#..
004250	04	FF	76	0A	9A	00	00	00-00	83	C4	02	8B	46	0A	A3	.v.....F..^
004260	16	00	BB	46	0C	A3	12	00-BB	46	0E	A3	14	00	1F	5E	.F.....F....^
004270	5F	C9	CB	90	CB	00	00	00-1E	BB	00	00	BE	D8	FF	76	-----v
004280	08	6A	01	9A	00	00	00	00-83	C4	04	6A	01	9A	00	00	.j.....j...
004290	00	00	83	C4	02	B3	7E	06-01	75	1C	FF	36	1A	00	FF	.~.u..6..
0042A0	34	1B	00	9A	00	00	00	00-83	C4	04	FF	36	1C	00	9A	e.....e..
0042B0	00	00	00	00	83	C4	02	FF-76	0E	FF	76	0C	9A	00	00	.....V..V...
0042C0	00	00	83	C4	04	FF	76	04-94	00	00	00	00	B3	C4	02	.....V.....
0042D0	BB	46	04	63	1E	00	BB	46-0C	A3	18	00	BB	46	0E	A3	.F.....F....F..
0042E0	1A	00	1F	C9	CB	90	4E	9C-3B	00	C4	92	9F	C4	8C	9F	....NL:.....
0042F0	C4	84	9F	CC	7B	56	28	CC-70	56	4B	CC	62	56	29	C4	.(V).BVH.BV.
004300	5F	9F	CC	56	56	48	C4	53-9F	C4	4F	9F	CC	40	56	1D	.VH.S..D..BV.
004310	CC	56	56	3E	CB	ZD	9D	C4-1E	9F	C4	18	9F	C4	12	9F	.BV.....
004320	CC	07	56	28	BC	3A	02	00-00	74							.V)....t
004330	CC	07	56	28	BC	8A	02	00-00	74							.V)....t

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0005C0	7E 07 C7 46 9 <del>F</del> FF 00 EB-08 83 7E 94 00 7B-05 C7	^..F.....~...)
0005D0	46 94 00 00 8B 46 F6 03-46 F0 3B 46 08 7D 05 C7	F....F..F.;F.>..
0005E0	46 94 7F 00 C4 5E F2 BA-46 94 26 88 07 83 46 F8	F...^..F.&...F.
0005F0	02 83 46 F2 02 FF 4E BE-75 92 80 46 BD 04 46 81	..F...N.u..F..F.
000600	FE DF 01 7F 03 E9 5D FF-5A 00 9A 00 00 00 00 83	....J..
000610	C4 02 6A 01 6A 02 5A 00-00 00 00 83 C4 04 5A 00	..J..J.....J..
000620	6A 03 6A FF 6A 01 9A 00-00 00 00 83 C4 08 5A 08	J..J..J.....J..
000630	6A 03 5A 01 6A 01 9A 00-00 00 00 83 C4 08 5A 08	J..J..J.....J..
000640	6A 01 5A FF 5A 02 94 00-00 00 00 83 C4 08 5A 08	J..J..J.....J..
000650	6A 01 6A 02 6A 02 94 00-00 00 00 83 C4 08 5A 08	J..J..J.....J..
000660	6A 03 5A FF 5A 03 94 00-00 00 00 83 C4 08 5A 08	J..J..J.....J..
000670	00 00 00 00 27 4E 7E 8B-5A 5B 00 01 71 08 21 00	....F...V...?..?
000680	82 46 7E-B9 4E 9E FF 7E-9E 5E 7E 4E 5A 00 00 00	EF..T...V...V...V...
000690	00 00 C4 04 89 4E 5A 5E-5A 9C 0B 00 75 1E FF 7E	....F...V...U..V..
0006A0	8E 7E 7E 9E 1E 8B CB 0E-9E 0D 0D 0C 00 87 C4 08	....P.....P.....
0006B0	2E 0C 1E 2E 5E 29 CB FF-7E 0E FF 7E 0E 04 0E 00	....V...V...V...V...
0006C0	00 00 03 C4 04 FF 7E 9E-FF 7E 9E 0A 00 00 00 00 00	....V...V...V...V...
0006D0	83 04 04 FF 7E 9E FF 7E-9E 9E 0E 01 0E 00 87 C4	....V...V...V...V...
0006E0	04 0E 8B 00 00 9A 00 00-00 00 9A 00 00 00 00 00 00	....V...V...V...V...
0006F0	00 00 00 00 8B 01 00 1E-5E 5F 0E 0E 00 00 00 00	....V...V...V...V...
000700	00 0E F5 5E 04 CE F0 5E-05 CE 5E 5E 02 8E 8E 8E	....V...V...V...V...
000710	0A CE DF 5E 0B CE D1 5E-05 CE 5E 5E 0E CE 4E 5E	....V...V...V...V...
000720	1E 0E AB 9D CE 92 5E 0E-CE 74 5E 1E CE AC 5E 14	....V...LV..<V...V..
000730	CE 5C 5E 1E CE 4C 5E 14-CE 3C 5E 1E CE 2C 5E 14	....V...V...+V...V...
000740	CF 1C 5E 1E CE 10 5E 13-CD 74 5E 17 CD 5E 5E 1E	....V...EV..3V..EV.
000750	ED 5E 5E 13 CD 43 5E 14-CD 3E 5E 15 CD 23 5E 14	....V...V...V...V...
000760	DD 1E 5E 13 CD 07 5E 0F-CC FA 5E 1A C4 F2 9D 84	....V...V...V...V...
000770	E8 5E 08 CC E0 5E 04 CC-DE 5E 03 CC 5E 5E 02 CC	....V...V...V...V...
000780	CE 5E 10 04 CE 9D 08 CC-2D C4 51 9D CC AS 5E 07	....V...V...V...V...
000790	C4 A5 9F C4 9E 9D 08 9E-9D C4 9E 9D CC 87 5E 11	....I...EV..I..h.
0007A0	C4 B0 9D C4 7C 9F CC 73-5E 11 C4 6E 9D C4 6E 9F	....V..X..T..N..EV
0007B0	CC 5F 5E 11 C4 5E 5D C4-54 9F C4 4E 9F CC 45 5E	..B..9V..6..(V..
0007C0	1B C4 42 9F CC 39 5E 0C-C4 3E 9F CC 28 5E 12 C4	ZV..
0007D0	25 5E 12 C8 20 9D C8 06-9D AB BA 02 00 00 74	ZV..
0007D0	25 5E 12 C8 20 9D C8 06-9D AB BA 02 00 00 74	ZV..

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000000 80 08 00 06 70 63 68 67-2E 63 3F 88 07 00 00 00 . . . . . pchg.c?....  
 000010 4D 53 20 43 6E 88 09 00-00 9F 4C 4C 49 42 43 45 MS Ch.....LLIBCE  
 000020 25 88 06 00 00 9D 32 6C-4F EB 88 06 00 00 A1 01 %.....210.....  
 000030 43 56 37 96 32 00 00 06-44 47 52 4F 55 50 09 50 CV7.2...DGROUP.P  
 000040 43 48 47 5F 54 45 58 54-04 43 4F 44 45 05 5F 44 CHG\_TEXT.CODE.\_D  
 000050 41 54 41 04 44 41 54 41-05 43 4F 4E 53 54 04 5F ATA.DATA.CONST.\_  
 000060 42 53 53 03 42 53 53 15-98 07 00 48 02 03 03 04 BSS.BSS....H...  
 000070 01 0C 98 07 00 48 40 01-05 06 01 C0 98 07 00 48 . . . . . H@.....H  
 000080 00 00 07 07 01 0A 98 07-00 48 46 00 08 09 01 C1 . . . . . HF.....  
 000090 3A 08 00 02 FF 03 FF 04-FF 02 54 9C 0B 00 00 03 . . . . . V.....  
 0000A0 01 02 02 01 03 04 40 01-45 01 00 3C 5E 00 04 5F . . . . . E.E.....  
 0000B0 5F 61 63 72 74 75 73 65-64 00 12 5F 63 61 65 61 \_acrtused..\_clea  
 0000C0 72 5F 51 63 74 69 6F 6E-5F 61 72 65 01 00 10 5F r\_action\_area..  
 0000D0 63 6C 65 61 72 5F 6D 65-6E 75 5F 61 72 65 61 00 clear\_menu\_area.  
 0000E0 13 5F 53 6C 65 61 72 5F-6D 68 73 73 61 67 45 5F ..clear\_message\_  
 0000F0 61 72 65 61 00 14 5F 77-72 69 74 65 5F 61 6C 6C area..\_write\_all  
 000100 5F 73 74 61 6E 64 51 72-54 73 00 15 5A 08 00 08 \_standards.....  
 000110 62 73 69 6C 64 70 74 72-00 53 9C 0C 00 09 5F 75 buildptr.....\_U  
 000120 68 73 6E 74 5F 77 6E 00-8D 84 1F 20 1A 73 68 6F nset\_wn.....\_ENO  
 000130 77 5F 69 64 65 6E 74 65-66 59 25 12 5F 77 69 6E w\_identifier\_win  
 000140 64 5F 77 00 E3 8C 03 01-10 5F 70 75 74 5F 70 63 dow.....\_put\_pc  
 000150 68 57 5F 76 61 6C 75 65-73 00 0F 5F 72 65 6D 6F no\_values..\_remo  
 000160 76 65 5F 77 69 6E 64 6F-77 73 00 15 5F 63 6C 6F ve\_windows..\_clo  
 000170 73 65 5F 73 74 61 6E 64-61 72 64 73 5F 66 69 6C se\_standards\_fil  
 000180 65 00 08 5F 64 65 66 73-5F 77 6E 00 05 5F 70 63 e..\_def\_wn..\_pc  
 000190 58 67 00 0E 5F 67 65 74-5F 73 74 61 6E 64 61 72 no..\_get\_standar  
 0001A0 64 73 00 0C 5F 73 65 74-5F 6D 65 71 73 61 67 65 ds..\_set\_message  
 0001B0 00 11 5F 73 65 74 5F 73-63 72 65 45 6E 5F 74 69 ..\_set\_screen\_ti  
 0001C0 74 6C 65 00 07 5F 76 5F-70 60 73 74 00 08 5F 62 tie..\_v\_plist..\_b  
 0001D0 64 72 5F 64 6C 6E 00 0B-5F 69 69 5F 6F 75 74 6D dr\_dln..\_im\_outm  
 0001E0 6F 64 65 00 0B 5F 69 6D-5F 6F 75 74 70 61 74 68 ode..\_im\_outoath  
 0001F0 00 0E 5F 69 6D 5F 69 6E-74 65 72 69 6D 61 67 65 ..\_im\_interimage  
 000200 00 0A 5F 67 6D 5F 6F 70-6D 6F 64 65 00 0A 5F 69 ..\_im\_opmode..\_i  
 000210 6D 5F 63 70 75 77 69 6E-00 13 5F 67 65 74 5F 65 m\_cpuwin..\_get\_e  
 000220 78 70 65 72 69 6D 65 6E-74 5F 6B 65 79 00 07 5F xperiment\_key..  
 000230 65 72 72 6D 73 67 00 0B-5F 73 70 72 69 6E 74 66 errmsg..\_sprintf  
 000240 00 07 5F 73 65 74 5F 77-6E 00 82 86 29 00 00 01 ..\_set\_wn...)...  
 000250 08 62 75 69 6C 64 70 74-72 00 00 00 16 73 68 6F .buildptr...sho  
 000260 77 5F 69 64 65 6E 74 69-66 69 65 72 5F 77 69 6E w\_identifier\_win  
 000270 64 6F 77 1E 00 00 44 90-1F 00 00 01 0F 5F 72 65 dow...D.....\_re  
 000280 6D 6F 76 65 5F 77 69 6E-64 6F 77 73 96 00 00 05 move\_windows....  
 000290 5F 70 63 68 67 B8 00 00-96 88 04 00 00 A2 01 D1 \_pchg.....  
 0002A0 A0 02 01 02 02 00 20 20-20 20 20 20 20 20 20 20 20 .....  
 0002B0 20 50 20 20 43 20 20 48-20 20 47 20 20 20 20 20 20 .Calcula  
 0002C0 20 20 20 20 20 20 20-00 43 61 6C 63 75 6C 61 ting percent cha  
 0002D0 74 69 6E 67 20 70 65 72-63 65 6E 74 20 63 68 61

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0002E0 6E e7 65 20 67 6D 61 67-65 20 20 00 75 75-89 6E nge image .usin  
 0002F0 67 20 69 6E 74 65 67, 65-72 20 6E 75 6D 62 65 72 g integer number  
 000300 20 61 72 69 74 68 6D 65-74 69 63 2E 20 20 00 42 arithmetic. .B  
 000310 69 6F 6C 6F 67 69 63 61-6C 20 56 69 73 69 6F 6E iological Vision  
 000320 20 20 20 50 43 48 47 20-2D 20 50 65 72 63 65 6E PCHG - Percent  
 000330 74 20 63 68 61 6E 67 65-20 62 65 74 77 65 65 6E t change between  
 000340 20 32 20 69 6D 61 67 65-73 00 53 63 61 6C 65 20 2 images. Scale  
 000350 3D 20 25 64 20 20 20 43-6C 68 70 20 3D 20 25 64 = %d Clip = %d  
 000360 20 20 20 4F 66 66 73 65-74 20 1D 20 25 64 00 50 Offset = %d.P  
 000370 43 45 47 34 20 43 61 65-27 74 20 61 63 63 65 73 CHG: Can't access  
 000380 73 20 73 74 61 6E 64 61-72 e4 73 20 69 6E 65 6F = standards info  
 000390 72 38 61 74 69 6E 6E 20-ee 6F 72 20 6B 65 79 20 rmation for key  
 0003A0 23 6C 54 00 59 60 06 00-02 00 00 00 00 00 58 A0 44 Nid.....A.D  
 0003B0 00 02 00 01 43 6F 70 79-72 64 67 68 74 20 28 63 ....Copyright (c  
 0003C0 28 20 31 39 38 37 2D 2C-42 69 6F 6C 6F 67 69 63 ) 1989. Biologic  
 0003D0 51 6C 20 56 67 73 59 6F-6E 20 47 6E 63 2E 20 20 al Vision Inc.  
 0003E0 41 6C 6C 20 72 69 57 68-74 71 20 72 6B 73 65 72 All rights reserved.  
 0003F0 76 65 64 00 56 40 06 03-01 00 00 08 00 00 00 1E .....,F.,S.,G.,  
 000400 58 00 00 8E 18 04 5E 06-8D 45 18 26 89 47 02 88 F.<.....>.....  
 000410 46 01 26 8F 07 1F C9 CB-90 1E 28 00 00 8E D8 B8 F...RF4&J.J.J..  
 000420 00 00 8A 00 00 52 50 5A-28 6A 05 6A 04 6A 03 1E h.....n...  
 000430 68 00 00 9A 00 00 00 00-83 C4 10 1E 68 00 00 9A .....B....h.  
 000440 00 00 00 00 83 C4 04 C7-05 42 00 01 00 1E 68 00 ..h..j.j.....  
 000450 00 1E 68 02 00 6A 01 5A-01 94 00 00 00 00 83 C4 ..h..m2.j.j...  
 000460 0C 1E 68 00 00 1E 68 2E-00 6A 01 6A 02 94 00 00 .....h...hH.j.j  
 000470 00 00 83 C4 0C 1E 68 00-00 1E 68 4B 00 6A 01 6A .....>..t..h  
 000480 03 9A 00 03 00 00 83 C4-0C C7 03 00 00 01 00 1F .....t..WV.....  
 000490 CB 1E 88 00 00 8E D8 63-3E 00 00 00 74 00 1E 68 .....t..hk.....  
 0004A0 00 00 7A 00 00 00 00 B3-C4 04 C7 04 00 00 00 00 .....F..F.....  
 0004B0 1F CB 90 CE 74 00 00 57-56 1E BB 00 00 00 8E D8 C7 F...hk.....  
 0004C0 46 7E 7F 00 1E 68 6B 00-9A 00 00 00 00 83 C4 04 .....>.....  
 0004D0 9A 00 00 00 00 9A 00 00-00 00 9A 00 00 00 00 0E .....j.v..v..h..  
 0004E0 EB 00 00 6A 7F FF 76 08-FF 76 06 1E 68 A6 00 8D .....F.F.....F..  
 0004F0 46 A0 16 50 9A 00 00 00-00 B3 C4 0E 8D 46 A0 16 Pj.....j....  
 000500 50 6A 01 9A 00 00 00 00-83 C4 06 6A 01 9A 00 00 .....j.j.j.j...  
 000510 00 00 83 C4 02 6A 00 6A-02 6A FF 6A 01 9A 00 00 .....j.j.j.j...  
 000520 00 00 83 C4 08 6A 08 6A-02 6A 01 6A 01 9A 00 00 .....j.j.j.j...  
 000530 00 00 83 C4 08 6A 00 6A-00 6A FF 9A 01 9A 00 00 .....F...j....  
 000540 00 00 83 C4 08 C7 46 FA-00 D0 6A 01 9A 00 00 00 .....j.j.....  
 000550 00 83 C4 02 6A 04 6A 00-9A 00 00 00 00 83 C4 04 .....>.....F.P..  
 000560 2B F6 89 76 BC 8B C6 C1-F8 06 89 46 92 50 9A 00 +..v.....F..F..V.@  
 000570 00 00 00 83 C4 02 6B 46-8C 89 46 FB BB 56 FA 40 .....F..V.....^..&  
 000580 89 46 F2 89 56 F4 BF 00-02 89 7E BE C4 5E FB 26 .....F..^..&....F..  
 000590 8A 07 98 89 46 F6 C4 5E-F2 26 BA 07 98 89 46 F0 .....F..n...N.;N.^..  
 0005A0 2B 45 F6 F7 6E 06 99 BB-4E F6 3B 4E FO 7E 03 8B +F...n...N.;N.^..  
 0005B0 4E FO 80 C9 01 F7 F9 05-7F 00 89 46 94 3D FF 00 N.....F.=..

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000E60	BA 00 20 C7 C4-C4 C4 C4-C4 C4 C4 C4 C4 C4 C4	.....
000E70	C4 C5 C4 C4 C4 C4 C4-C4 C4 C4 C4 C4 C4 B3	.....
000E80	20 52 61 64 69 75 73 3D-20 25 33 64 20 BA 00 20	Radius= %3d ..
000E90	BA 20 20 25 36 64 20 20-20 20 20 B3 20 20 25 36	. %6d . %6
000EA0	64 25 25 20 20 20 B3-20 58 20 20 20 20 20 20 3D	d%% . X =
000EB0	20 25 33 64 20 BA 00 20-BA 20 20 20 20 20 20 20 3D	%3d .. (%6d)
000EC0	64 29 20 B3 20 20 28-25 36 64 29 20 20 B3 20	d) . (%6d)
000ED0	59 20 20 20 20 20 3D 20-25 33 64 20 BA 00 20 CB	Y = %3d ..
000EE0	CD CD CD CD CD CD-CD CD CD CF CD CD	.....
000EF0	CD CD CD CD CD CD CD-CD CD CD CF CD CD	.....
000F00	CD CD CD CD CD CD CD-CD BC 00 43 68 65 63 6B	..... Check
000F10	20 70 72 69 6E 74 65 72-20 73 74 61 74 75 73 2C	Printer status.
000F20	20 70 72 65 73 73 20 49-20 74 6F 20 69 67 6E 6F	Dress I to ignore it. C to continue.. PRN.*** C
000F30	72 65 20 69 74 2C 20 43-20 74 6F 20 63 6F 6E 74	an not open device Line Printer
000F40	69 6E 75 65 2E 00 50 52-4E 00 2A 2A 2A 2A 2A 20 43	***** POSITIO
000F50	61 6E 20 6E 6F 74 20 6F-70 65 6E 20 64 65 76 69	N. CONTROL.
000F60	63 65 20 4C 69 6E 6E 21-50 72 69 6E 74 65 72 20	EXPERIMENT
000F70	2A 2A 2A 2A 00 20 20 20-20 50 4F 53 49 54 49 4F	DIFFERENC
000F80	4E 00 20 20 20 43 4F-4E 54 52 4F 4C 00 20 20	E. %CHANGE..
000F90	20 20 20 20 20 45 58-50 45 52 49 4D 45 4E 54	X2d%8s %s.%s%11
000FA0	00 20 20 20 20 20 44-49 46 46 45 52 45 4E 43	d%16d%16d%13d.%s
000FB0	45 00 20 20 20 20 25 25-43 48 41 4E 47 45 0A 00	%s%4d%4d%5d%5d.
000FC0	25 32 64 25 73 20 20 20-25 73 2C 25 73 25 31 31	K.+..p.CONTROL.E
000FD0	64 25 31 36 64 25 31 36-64 25 31 33 64 00 25 73	XPERIMENT.DIFFER
000FE0	20 25 73 25 34 64 25 34-64 25 35 64 25 35 64 00	ENCE.% CHANGE...
000FF0	4B A0 2B 00 02 70 0A 43-4F 4E 54 52 4F 4C 00 45	....S....
001000	58 50 45 52 49 4D 45 4E-54 00 44 49 46 46 45 52	.....: Copyr
001010	45 4E 43 45 00 25 20 43-48 41 4E 47 45 00 E1 A0	ight (c) 1987, B
001020	0A 00 02 00 00 00 00 00-00 01 00 53 A0 06 00 02	iological Vision
001030	D4 00 FF FF 86 A0 C2 00-02 3A 03 43 8F 70 79 72	Inc. All right
001040	69 67 68 74 20 28 63 29-20 31 39 38 39 2C 20 42	s reserved.....
001050	69 6F 6C 6F 67 69 63 61-6C 20 56 69 73 69 6F 6E	.....%...?..
001060	20 49 6E 63 2E 20 20 41-6C 6C 20 72 69 67 68 74	a.....
001070	73 20 72 65 73 65 72 76-65 64 00 00 00 00 00 00	....J.....
001080	00 0C 00 00 00 15 00 00-00 25 00 00 00 3F 00 00	....M.....
001090	00 61 00 00 00 B1 00 00-00 B1 00 00 00 DD 00 00	....1.....!
0010A0	00 15 01 00 00 5D 01 00-00 9F 01 00 00 E9 01 00	....-....U..
0010B0	00 39 02 00 00 91 02 00-00 ED 02 00 00 4D 03 00	....A.....
0010C0	00 BD 03 00 00 31 04 00-00 A9 04 00 00 21 05 00	....J...H.4....
0010D0	00 A1 05 00 00 2D 06 00-00 C5 06 00 00 55 07 00	.....
0010E0	00 E9 07 00 00 A1 08 00-00 41 09 00 00 F9 09 00	.....
0010F0	00 A5 0A 00 00 5D 0B 00-00 48 A0 34 00 02 CA 07	.....
001100	AF 07 00 00 B1 07 00 00-B3 07 00 00 B5 07 00 00	.....
001110	B7 07 00 00 B9 07 00 00-BB 07 00 00 BD 07 00 00	.....
001120	BF 07 00 00 C1 07 00 00-C4 07 00 00 C7 07 00 00	.....
001130	4A 9C 25 00 CC 2C 9D CC-28 9D CC 24 9D CC 20 9D	J.%...,\$..

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001140 CC 1C 9D CC 18 9D CC 14-9D CC 10 9D CC 0C 9D CC ..... K.\$.  
 001150 08 9D CC 04 9D CC 00 9D-4B A0 24 00 02 0A 08 FA .....  
 001160 07 00 00 FC 07 00 00 FE-07 00 00 00 08 00 00 02 .....  
 001170 08 00 00 04 08 00 00 06-08 00 00 08 08 00 00 E3 .....  
 001180 9C 19 00 CC 1C 9D CC 18-9D CC 14 9D CC 10 9D CC .....  
 001190 0C 9D CC 08 9D CC 04 9D-CC 00 9D 93 A0 20 00 02 .....  
 0011A0 54 0A 00 00 00 01 00 00-00 01 00 00 00 00 F0 00 T.....  
 0011B0 F0 00 00 00 00 00 00 00-03 00 01 00 01 00 F9 A0 .....  
 0011C0 06 00 02 98 0A 01 00 B5-A0 9E 00 01 00 00 CB 08 .....  
 0011D0 00 00 57 56 1E BB 00 00-8E D8 EB 05 9A 00 00 00 .....  
 0011E0 00 9A 00 00 00 00 0B C0-75 F2 FF 75 06 FF 75 0e .....  
 0011F0 FA 00 00 00 00 B3 C4 04-2B F6 2E FF 5A 45 0C 98 .....  
 001200 B7 46 FA 8A 46 0A 98 89-46 FB 7A 00 00 00 00 00 88 .....  
 001210 F0 F6 84 01 00 02 74 06-8D 44 E0 EB 03 90 8E 0e .....  
 001220 BB F0 3B 76 F8 74 05 3B-76 FA 75 03 BF 01 00 0B .....  
 001230 FF 74 D7 89 7E FC 89 76-FE 9A 00 00 00 00 8A 45 .....  
 001240 0A 98 3B C6 75 0A C6 06-04 00 01 1F 5E 5F C5 CB .....  
 001250 C6 06 04 00 00 1F 5E 5F-C9 CB 1E BB 00 00 00 8E DB .....  
 001260 C6 06 04 00 01 1F CB 90-1F 9C 28 00 C4 94 70 C2 .....  
 001270 8E 9D C4 84 9D C4 7A 9D-CC 6C 5e 0C C4 4E 5E 0D .....  
 001280 CC 3D 56 37 CC 23 56 59-CC 14 5e 3B CC 0F 56 37 .....  
 001290 CB 0E 9D 14 A0 06 00 03-00 00 00 00 57 9C 05 00 .....  
 0012A0 D8 00 56 23 1E A0 D8 00-01 9A 00 CB 00 00 00 00 1E .....  
 0012B0 BB 00 00 0E D8 A1 00 00-0B 06 02 00 7E 27 B9 3E .....  
 0012C0 05 00 00 75 1A FE 06 05-00 1E 68 06 00 9A 00 00 .....  
 0012D0 00 00 B3 C4 04 9A 00 00-00 00 9A 00 00 00 00 2B .....  
 0012E0 C0 1F C9 CB 90 BE 06 00-00 BB 46 06 24 A3 06 00 .....  
 0012F0 BB 46 08 26 A3 02 00 BB-46 0A BB 56 0C 26 A3 04 .....  
 001300 00 26 29 16 06 00 BB 46-0E BB 56 10 26 A3 08 00 .....  
 001310 26 29 16 0A 00 B3 3E D4-00 00 7D 33 FF 56 02 00 .....  
 001320 FF 36 00 00 BB 00 00 BA-00 00 52 50 9A 00 00 00 .....  
 001330 00 B3 C4 08 0B C0 75 0F-1E 68 4C 00 9A 00 00 00 .....  
 001340 00 B3 C4 04 EB 99 90 C7-06 D4 00 01 00 EB 2A FF .....  
 001350 36 D4 00 FF 06 D4 00 FF-36 02 00 FF 36 00 00 BB 6.....6....6....  
 001360 00 00 BA 00 00 52 50 9A-00 00 00 00 B3 C4 0A 0B .....  
 001370 C0 75 06 1E 68 90 00 EB-C3 BB 01 00 1F C9 CB 81 .....  
 001380 9C 74 00 C4 CA 9D CC BD-56 57 C8 B8 56 23 C4 B5 .....  
 001390 56 23 C4 B2 9D C4 AE 9D-C4 AA 9D C4 A6 9D C4 9E V#.....  
 0013A0 9D CC 92 56 1C C4 8F 9D-CC B2 56 4D CB 7D 56 23 .....  
 0013B0 C4 7A 56 23 C4 77 9D C4-73 9D C4 6C 9D C4 68 56 .....  
 0013C0 23 C4 63 56 23 C4 59 56-23 C4 54 56 23 C4 4A 56 .....  
 0013D0 23 C4 43 56 23 C4 3C 9C-CC 30 56 0C CC 2B 56 37 .....  
 0013E0 CC 23 56 59 C4 20 9D C4-1C 9D C4 15 9D C4 OF 9D .....  
 0013F0 C4 0B 9D CB 06 5D BB A0-30 00 03 02 00 00 00 E0 6F .....  
 001400 40 00 00 00 00 00 00 00-00 00 00 00 00 00 00 F0 .....  
 001410 40 00 00 00 00 00 00 00-40 00 00 00 00 00 00 F0 .....

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001420	3F 00 00 00 00 00 E0-3F BE A0 B7 03 01 6E 01	?.....?....n.
001430	C8 8C 0D 00 57 56 1E BB-00 00 BE DB C7 86 BA F6	....WV.....
001440	00 00 C7 86 4C F7 00 00-C7 B6 EA F6 80 00 C7 86	....L.....
001450	DC F6 78 00 C7 86 BC F6-02 00 C7 86 C0 F6 00 00	...x.....
001460	C7 86 D6 F6 00 00 C7 46-A4 01 00 C7 86 C2 F6 00	.....F.....
001470	00 C7 86 A0 F2 01 00 C7-86 EC F6 FF 00 C7 86 A2	.....
001480	F2 00 00 C7 86 E0 F6 7E-00 C7 86 DB F6 76 00 C7	.....^....v..
001490	B6 DA F6 80 00 C7 86 CC-F6 78 00 C7 86 54 F7 0A	.....x...T..
0014A0	00 C7 46 C2 00 00 C7 86-BE F6 00 00 C7 46 AC 14	.F.....F..
0014B0	00 68 00 03 6B 00 D0 9A-00 00 00 B3 C4 04 6A 01 6A 01	h..h.....J..J..
0014C0	00 6A 02 9A 00 00 00 00-83 C4 04 6A 01 6A 01 9A 00 00	j.....J..J..
0014D0	00 9A 00 00 00 00 B3 C4-06 6A 01 6A 01 9A 00 00	.....J..J..
0014E0	00 00 83 C4 04 6A 00 6A-01 9A 00 00 00 00 83 C4	.....J..J..
0014F0	04 C7 06 D4 00 FF FF 0E-E8 00 00 C7 86 C4 Fe 00	.....
001500	00 C7 86 C6 F6 01 01 C7-86 C8 F6 00 00 C7 86 CA	.....
001510	F6 01 01 C7 86 B0 F6 F1-00 C7 86 B2 F6 F1 00 C7	.....
001520	B6 B4 F5 00 00 C7 86 B6-F6 00 00 C7 46 BA 00 00	.....F...
001530	C7 46 BC 01 00 C7 46 BE-02 00 C7 46 C0 03 00 1E	.F....F....F...
001540	68 D6 00 9A 00 00 00 00-83 C4 04 6A 00 0E E8 00	h.....J....
001550	00 B3 C4 02 9A 00 00 00-00 0B D2 7F 18 7C 08 3D	.....J..J..
001560	00 04 73 14 1E 68 0F 01-9A 00 00 00 00 83 C4 04	.s..h.....
001570	2B C0 1F 5E 5F C9 CB 90-9A 00 00 00 00 9A 00 00	+...^.....
001580	00 00 0B D2 7F 0E 7C 05-3D 22 01 73 07 1E 6B 36	....J.=".s..h6
001590	01 EB D5 90 FF B6 54 F7-FF B6 C2 F6 FF 76 A4 0E	....T....v..
0015A0	E8 00 00 B3 C4 06 1E 68-61 01 6A 00 9A 00 00 00	....ha.j....
0015B0	00 B3 C4 06 C7 86 A6 F4-01 00 B8 BE A6 F4 B8 F1	.....
0015C0	B8 C1 8B 82 A7 F4 C6 B2-A8 F4 FF B8 82 A3 F2 C6	.....^..
0015D0	B2 A4 F2 00 B3 C1 02 B1-F9 FF 00 7E E1 89 BE A6	.....
0015E0	F4 6A 00 9A 00 00 00 00-23 C4 02 BD B6 A4 F2 16	.j.....
0015F0	50 BD 86 A4 F2 16 50 BD-B6 A8 F4 16 50 68 00 01	P....P....Ph..
001600	6A 00 6A 00 6A 01 9A 00-00 00 00 B3 C4 14 6A 00	J..J..J.....J..
001610	6A 02 9A 00 00 00 00 B3-C4 04 6A 00 9A 00 00 00	J.....J..
001620	00 B3 C4 02 FF B6 EC F6-9A 00 00 00 00 B3 C4 02	.....
001630	6A 01 68 FE 00 6A 06 FF-76 BC FF 76 BC 9A 00 00	j.h..j..v..v....
001640	00 00 B3 C4 0A 6A 01 68-FE 00 6A 06 FF 76 BE FF	....j.h..j..v..
001650	76 BE 9A 00 00 00 00 B3-C4 0A 6A 01 68 FE 00 6A	v.....j.h..J
001660	06 FF 76 C0 FF 76 C0 9A-00 00 00 00 B3 C4 0A 6A	.v..v.....J
001670	00 FF 76 BA 9A 00 00 00-00 B3 C4 04 9A 00 00 00	.v.....
001680	00 A3 00 00 89 16 02 00-0B D2 7F 0E 7C 04 0B C0	.....J..
001690	75 0B 2B C0 A3 02 00 A3-00 00 FF 36 02 00 FF 36	u+.....6...6
0016A0	00 00 9A 00 00 00 00 B3-C4 04 A3 00 00 89 16 02	.....
0016B0	00 1E 68 0E 00 1E 68 0E-00 1E 68 0E 00 1E 68 0E	.h..h..h..h..h..
0016C0	00 1E 68 0E 00 1E 68 0E-00 1E 68 0C 00 1E 68 0A	.h..h..h..h..h..
0016D0	00 1E 68 0B 00 1E 68 06-00 9A 00 00 00 00 B3 C4	.h..h..h..h..h..
0016E0	28 0B C0 75 24 1E 68 7F-01 9A 00 00 00 00 B3 C4	(.u\$..h.....
0016F0	04 C7 06 06 00 00 C7-06 08 00 00 00 C7 06 0A	.....

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001700	00 2B 00 C7 06 0C 00 3C-00 83 3E 06 00 00 75 3B	.+...<..>..u;
001710	83 3E 08 00 00 75 34, 83-3E 0A 00 00 75 2D 83 3E	>..u4.>..u->
001720	0C 00 00 75 26 1E 68 A6-01 6A 00 9A 00 00 00 00	..u&.h..i.....
001730	83 C4 06 C7 06 06 00 00-00 C7 06 08 00 00 00 C7	.....
001740	06 0A 00 2B 00 C7 06 0C-00 3C 00 8D 86 F0 F6 16	...+...<....
001750	50 8D 86 56 F7 16 50 9A-00 00 00 00 83 C4 08 0B	F..V..P.....
001760	D0 75 14 9B D9 EE 9B D9-9E 56 F7 9B D9 06 02 00	.u.....v.....
001770	9B D9 9E F0 F6 90 9B BD-46 B2 16 50 8D 46 C4 16	.....F..P.F..
001780	50 9A 00, 00 00 00 83 C4-08 9B D9 86 F0 F6 9B DC	P.....
001790	16 06 00, 9B DD D8 9B DF-E0 9E 75 04 9B DS 06 02	.....
0017A0	00 9B D9 9E F0 F6 9B D9-86 F0 F8 FF DC 16 2e 00	.....
0017B0	96 DD 1B 9B DF E0 9E 72-13 9B D9 86 F0 F8 FF D8	..V.....S.....
0017C0	96 56 F7 9B DD D8 9B DF-E0 9E 73 0A 9B D9 06 02	.....F...N..
0017D0	00 9B D9 9E F0 F6 9B D9-46 C4 9B DB 4E B2 9B D9	.....E..V...V..
0017E0	9E A8 F6 10 9C 5A 01 C7-AE 56 05 C7 AA 56 05 C7	..V...V.....V..
0017F0	A8 56 05 C7 A1 56 05 C7-9F 9C C7 9C 56 05 C7 96	V...V...V...V...V..
001800	56 05 C7 93 56 05 C7 BE-56 05 C7 89 56 05 C7 83	V...V...V...V...V..
001810	51 05 C7 80 56 05 C7 7E-9C C7 7B 56 05 C7 76 56	..5V...6..IV...TV.
001820	05 C7 71 56 05 C7 6F 9C-C7 AC 56 05 C7 86 56 05	..cv..a..V..V..
001830	C7 63 56 05 C7 61 9C C7-5E 56 05 C7 59 55 05 CF	RV..EV..EV...V..
001840	52 56 08 C7 45 56 06 C7-40 56 05 C7 3E 9C C7 3B	V...6V..3V..(V+..
001850	56 05 C7 36 56 05 C7 33-56 05 CF 28 56 2A C7 17	.....VX..
001860	9F C7 11 9F C7 0B 9F C7-05 9F CE FC 56 25 C6 F7	.....
001870	9D C6 F0 9F C6 E9 9F C6-E2 9F C6 DB 9F C6 D5 9F	.....
001880	C6 CF 9F C6 C7 9F C6 C3-9F CE BA 56 1C C6 B7 9D	.....V..
001890	CE 4A 56 4C C6 A7 9F C6-C3 9F C6 9F C6 9B 9F	..VL.....
0018A0	C6 57 9F C6 93 9F C6 8F-9F C6 8B 9F C6 87 9F C6	...C..EV..B..
0018B0	83 9F C6 7F 9D C6 7B 9D-CE 73 56 1B C6 70 9F C6	1..h..e..V..R..M
0018C0	8C 9F C6 68 9F C6 65 9F-C6 56 9F C6 52 9F CE 4D	V..EVX..BVV..#VV..
0018D0	56 08 CE 45 56 58 CE 3B-56 56 CE 23 56 56 CE 0E	VV..VU..VS..V>..
0018E0	56 56 CD F9 56 55 CD EP-56 53 CD E3 56 3E CD D7	VR..VP..>V%..x..qV
0018F0	56 52 CD B4 56 50 CD 7D-56 25 C5 78 9D 85 71 56	J...NV=.IVG.9V.
001900	4A C5 5F 9D CD 4E 56 3D-CD 49 56 47 CD 39 56 1C	.6..XV9..VE..V..
001910	C5 36 9D CD 25 56 39 85-1F 56 45 CD 14 56 28 C5	....V.....VC..V
001920	11 9D 84 C9 56 12 C4 C3-9D CC BA 56 43 CC AE 56	A..V@..V>..V<..
001930	41 CC A2 56 40 CC 94 56-3E CC 88 56 3C C8 08 9D	W....!.....6.
001940	77 A0 B8 03 01 21 05 9B-D9 86 F0 F6 9B DC 36 0E	.....^
001950	00 9B D8 B6 A8 F6 9B D9-5E AB 90 9B C7 86 A6 F4	.....
001960	00 00 2B C0 B9 00 01 8D-BE A4 F2 16 07 F2 AB B0	..+.....
001970	86 A7 F4 02 BF EF 00 C7-86 9B F2 DE 01 FF 76 C0	.....
001980	6A 00 9A 00 00 00 00 83-C4 04 8D B6 AB F4 16 50	j.....j.....
001990	68 00 02 FF B6 9B F2 6A-00 9A 00 00 00 00 00 B3 C4	h.....j.....
0019A0	0A C7 46 EE 00 00 8D 86-A8 F4 89 86 9A F2 BC 96	.F.....
0019B0	9C F2 2B C9 8C 9E 9E F2-C5 B6 9A F2 BB D9 03 DD	..+.....
0019C0	8A 04 36 8B 87 A4 F2 B3-C6 02 41 81 F9 FE 00 7E	.6.....A..~
0019D0	EB 8E 9E 9E F2 B9 4E EE-FF 76 BA 6A 00 9A 00 00	.....N..v.j....

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0019E0 00 00 B3 C4 04 8D 86 A4-F2 16 50 68 00 02 8D 85 .....Ph....  
 0019F0 F0 00 50 6A 00 9A 00 00-00 00 B3 C4 0A B3 AE 98 ..Pj.....  
 001A00 F2 02 4F B3 FF 01 7C 03-E9 72 FF 89 BE A6 F4 1E ..D...I.r....  
 001A10 68 C8 01 9A 00 00 00 00-B3 C4 04 FF 76 BC 6A 00 h.....v.j.  
 001A20 9A 00 00 00 00 B3 C4 04-1E 68 D5 01 9A 00 00 00 .....h....  
 001A30 00 B3 C4 04 A1 06 00 99-2B C2 D1 F8 89 86 BB F6 .....+....  
 001A40 A1 08 00 99 2B C2 D1 F8-05 F1 00 89 86 AC F6 A1 ....+....  
 001A50 0A 00 99 B9 04 00 F7 F9-03 86 BB F6 89 46 D0 6A .....F.j  
 001A50 00 6A 01 9A 00 00 00 00-B3 C4 04 6A 00 9A 00 00 ..j.....j....  
 001A70 00 00 B3 C4 02 6A 00 6A-00 9A 00 00 00 00 B3 C4 .....j.j....  
 001A80 0A FF B6 A0 F2 9A 00 00-00 00 B3 C4 02 2B F6 A1 .....+....  
 001A90 0A 00 99 2B C2 D1 F8 F7-EE 03 46 D0 89 46 A0 5e ..,+....F..F.V  
 001AA0 0E EB 00 00 B3 C4 02 BB-D8 8E C2 57 BB FB 89 FF .....W....  
 001AB0 FF 33 C0 F2 AE F7 D1 49-5F BB F9 5e 0E EB 00 00 ..S....I..V....  
 001AC0 B3 C4 02 52 50 57 57 6A-01 68 FA 00 FF 76 A0 6A ...RPWWJ.n...v.j  
 001ADD 01 5A 00 9A 00 00 00 00-B3 C4 12 46 B3 FE 0B 7E ..j.....F...  
 001AE0 AE 89 BE 5A F7 B9 B6 A6-F4 A1 0C 00 99 B9 04 00 ...Z....  
 001AF0 F7 F9 BB C8 A1 0B 00 99-2B C2 D1 F8 03 C1 05 F7 .....+....  
 001B00 00 89 46 C8 2B F6 A1 0C-00 99 2B C2 D1 F8 F7 EE ..F.+....+....  
 001B10 03 46 C8 89 86 5C F7 56-0E EB 00 00 B3 C4 02 6B ..F...N.V....  
 001B20 D8 8E C2 57 BB FB B9 FF-FF 33 C0 F2 AE F7 D1 49 ...W....3....I  
 001B30 5F BB F9 56 0E EB 00 00-B3 C4 02 52 50 57 57 6A ...V....RPWWJ  
 001B40 02 FF B6 5C F7 6A 08 6A-01 6A 00 9A 00 00 00 00 ...N.j.j.i....  
 001B50 93 C4 12 46 B3 FE 07 7E-AD B9 BE 5A F7 B9 B6 A6 ..F...^....Z...  
 001B60 F4 5A 00 6A 02 9A 00 00-00 00 B3 C4 04 6A 00 FF ..j.j.....j..  
 001B70 76 BA 6A FF FF 76 BA 9A-00 00 00 00 B3 C4 08 6A V.j..V.....j  
 001B80 00 5A 02 9A 00 00 00 00-B3 C4 04 BB 86 EA F6 05 ..j....  
 001B90 FE 00 89 B6 DE F6 8B B6-DC F6 05 EE 00 89 86 D2 .....  
 001BA0 F6 8B 86 EA F6 99 2B C2-D1 F8 40 89 86 D4 F6 88 ..,+....@...  
 001BB0 56 DC F6 99 2B C2 D1 F8-05 F1 00 89 86 BE F6 FF ..,+....  
 001BC0 B6 A0 F2 9A 00 00 00 00-B3 C4 02 BB B6 D4 F6 03 .....WV...  
 001BDO B6 E0 F6 8B BE F6 03-BE DB F6 57 56 FF B6 BE .....V.j....  
 001BE0 F6 FF B6 D4 F6 FF 76 BA-6A 00 9A 00 00 00 B3 .....  
 001BFO C4 OC 9B DF 06 OA 00 9B-D9 C0 9B DB BE BE F2 90 .....  
 001C00 9B 8B 86 D4 F6 2B 86 B8-F6 89 86 9B F2 9B DF 86 ..,+....  
 001C10 9B F2 9B DC 0E 16 00 9B-D8 F1 9B D9 9E 4E F7 90 .....N..  
 001C20 9B 8B C6 2B 86 B8 F6 89-86 9B F2 9B DF 86 9B F2 ..,+....  
 001C30 9B DC 0E 16 00 9B DB F1-9B D9 9E F4 F6 9B DF 06 .....  
 001C40 OC 00 9B D9 C0 9B DB BE-B4 F2 90 9B BB 86 BE F6 .....  
 001C50 2B 86 AC F6 89 B6 98 F2-9B DF 86 9B F2 9B DC 0E +....  
 001C60 16 00 9B DB F1 9B D9 9E-F8 F6 90 9B BB C7 2B 86 .....  
 001C70 AC F6 89 86 98 F2 9B DF-86 9B F2 9B DC 0E 16 00 .....  
 001C80 9B DB F1 9B D9 9E E2 F6-9B D9 86 4E F7 9A 00 00 ..,+....N...  
 001C90 00 00 89 46 D2 9B D9 86-F4 F6 9A 00 00 00 00 89 ..F.....  
 001CA0 46 CA 9B D9 86 F8 F6 9A-00 00 00 00 B9 46 CC 9B F.....F..  
 001CB0 D9 86 E2 F6 9A 00 00 00-00 89 46 B6 9B DF 46 D2 ..,+....F...F.

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001CC0	9B DB A6 4E F7 9B DC 06-1E 00 9B D9 96 E6 F6 9B	...N.....
001CD0	DC 16 06 00 9B DD DB 9B-DF EO 9E 9B DD C1 9B DD	.....
001CE0	C0 74 13 9B D9 86 E6 F6-9B DC 16 1E 00 9B DD DB	.t.....
001CF0	9B DF EO 9E 75 14 9B DF-06 0A 00 C5 9C 69 01 C7	...u.....i..
001D00	B2 9F C7 AF 56 05 C7 A9-56 05 C7 A6 56 05 C7 A4	...v...v...v...v...
001D10	9C C7 A1 56 05 C7 9C 56-05 C7 97 56 05 C7 94 56	...v...v...v...v...
001D20	05 C7 90 56 05 C7 8D 56-05 C7 BB 9C C7 88 56 05	...v...v...v...v...
001D30	C7 83 56 05 C7 81 9C C7-7E 56 05 C7 79 56 05 C7	...v.....~v...yv..
001D40	75 56 05 CF 6E 56 51 C7-68 56 05 CF 61 56 51 C7	uv..nvQ.nV..svQ.
001D50	5B 56 05 CF 54 56 51 C7-4E 56 05 CF 47 56 51 C7	lv..tvQ.nV..gvQ.
001D60	41 56 05 C7 3C 56 05 C7-39 56 05 C7 37 9C C7 34	AV..v..v..v..7..4
001D70	56 05 C7 2F 56 05 C7 23-56 06 C7 1E 56 05 C7 1B	V.../v..#v...v...
001D80	56 05 C7 19 9C C7 16 56-05 C7 11 56 05 C7 03 56	v.....v...v...v...v
001D90	06 C6 FE 56 05 C6 FB 56-05 C6 F9 9F C6 F6 56 05	...v...v...v...v...
001DA0	C6 F1 56 05 C6 EE 56 05-C6 EC 9C C6 E9 56 05 C6	...v...v...v...v...
001DB0	E4 56 05 C6 D8 56 06 C6-D3 56 06 C6 D0 56 05 C6	...v...v...v...v...
001DC0	CE 9C C6 CB 56 05 C6 C6-56 05 C6 BB 56 06 C6 B3	V...v...v...v...v...v
001DD0	56 05 C6 B6 56 05 C6 AE-9F C6 AB 56 05 CE A9 56	z.3VU.=v..1V\$..v
001DE0	26 CE 7D 56 55 CE 3D 56-3E CE 31 56 24 CE 1F 56	z..VI..v...v/...
001DF0	3E CE 05 56 21 85 EF 56-2F 85 D3 56 2F C5 C0 9F	.....VI..wV-E
001E00	C5 AE 9F C5 A3 9F CD 8D-54 21 85 77 56 2D 85 5B	V-.I..?VU.3V/.V
001E10	56 2D C5 49 9F CD 3F 56-55 CD 33 56 3E CD 27 56	...V>.....
001E20	1D CD 1D 56 3E C5 09 9F-C4 FA 9F C4 EE 9F CC E6	V.....V>.V...
001E30	56 1A C4 E3 9D CC DA 56-3E CC CD 56 1A C4 CA 9D	...V...V>SV...V>
001E40	CC AF 56 19 CC 97 56 3E-CC 53 56 16 CC 3C 56 3E	...V...V...V...
001E50	C4 13 56 06 C4 0F 56 05-C4 0A 56 05 C4 08 9C C4	...V...V.I.....
001E60	05 56 05 C4 00 56 05 49-A0 17 03 01 D5 08 9B DC	...V...V.I.....
001E70	36 16 00 9A 00 00 00 00-89 46 BB EB 46 5B D9 86	6.....F..H...
001E80	E6 F6 9B DC 16 26 00 9B-DD DB 9B DF EO 9E 76 13	....&.....v
001E90	9B D9 86 E6 F6 9B DC 16-26 00 9B DD DB 9B DF EO	....v.....
001EA0	9E 76 22 9B D9 86 E6 F6-9B DE 0E 0A 00 9B DF 06	....6.....
001EB0	0A 00 9B DC 36 16 00 9B-DE C1 9A 00 00 00 00 89	F..F...F.....
001EC0	46 B8 FF 46 D2 9B DF 46-CA 9B DB A6 F4 F6 9B DC	.....
001ED0	06 1E 00 9B D9 96 E6 F6-9B DC 16 06 00 9B DD DB	.....
001EE0	9B DF EO 9E 74 16 9B D9-86 E6 F6 9B DC 16 1E 00	....t.....
001EF0	9B DD DB 9B DF EO 9E 74-03 FF 4E CA 9B DF 46 CC	....t..N..F.
001FO0	9B DB A6 F8 F6 9B DC 06-1E 00 9B D9 96 CE F6 9B	.....
001F10	DC 16 06 00 9B DD DB 9B-DF EO 9E 74 13 9B D9 86	.....t...
001F20	CE F6 9B DC 16 1E 00 9B-DD DB 9B DF EO 9E 75 15	.....u..
001F30	9B DF 06 0C 00 9B DC 36-16 00 9A 00 00 00 00 89	....6.....
001F40	86 A4 F4 EB 49 9B D9 86-CE F6 9B DC 16 26 00 9B	....I.....&..
001F50	DD DB 9B DF EO 9E 76 13-9B D9 86 CE F6 9B DC 16	....v.....
001F60	26 00 9B DD DB 9B DF EO-9E 76 23 9B D9 86 CE F6	&.....v#....6...
001F70	9B DE 0E OC 00 9B DF 06-OC 00 9B DC 36 16 00 9B	.....F...
001FB0	DE C1 9A 00 00 00 00 89-B6 A4 F4 FF 46 CC 9B DF	.....
001F90	46 B6 9B DB A6 E2 F6 9B-DC 06 1E 00 9B D9 96 CE	F.....

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001FA0	F6	9B	DC	16	06	00	9B	DD-D8	9B	DF	E0	9E	74	16	9B	.	.	t..
001FBO	D9	86	CE	F6	9B	DC	16	1E-00	9B	DD	D8	9B	DF	E0	9E	.	.	.
001FC0	74	03	FF	4E	B6	FF	B6	D2-F6	FF	B6	DE	F6	FF	B6	DC	t..	N..	.
001FDO	F6	FF	B6	EA	F6	0E	E8	00-00	B3	C4	08	FF	B6	54	F7	.	.	T..
001FE0	FF	B6	C2	F6	FF	76	A4	0E-E8	00	00	B3	C4	06	E9	68	.	v..	h..
001FF0	0D	8D	86	C0	F6	16	50	8D-46	CE	16	50	8D	46	F2	16	.	P.F..	P.F..
002000	50	9A	00	00	00	00	83	C4-0C	89	46	F0	FF	B6	C0	F6	P..	.	F..
002010	9A	00	00	00	00	83	C4	02-83	7E	A4	00	74	23	B3	7E	.	~..	t#..
002020	F0	00	7E	1D	83	7E	C2	01-75	17	FF	B6	D2	F6	FF	B6	.	~..	~..u..
002030	DE	F6	FF	B6	DC	F6	FF	B6-EA	F6	0E	E8	00	00	B3	C4	.	.	.
002040	08	B3	7E	F0	00	7F	03	E9-0F	0D	B3	7E	F0	01	74	03	.	~..	~..t..
002050	E9	91	03	B3	7E	A4	00	75-52	C7	B6	C2	F6	00	00	BB	.	~..	ub..
002060	4e	F2	01	B6	DA	F6	BB	46-CE	01	86	CC	F6	B3	BE	DA	F..	.	F..
002070	F6	00	7D	06	C7	B6	DA	F6-00	00	B1	BE	DA	F6	FE	00	.	3..	.
002080	7E	06	C7	B6	DA	F6	FE	00-B3	BE	CC	F6	00	7D	06	C7	.	~..	~..
002090	B6	CC	F6	00	00	B1	BE	CC-F6	EE	00	7E	06	C7	96	CC	.	.	.
0020A0	F6	EE	00	FF	B6	CC	F6	FF-B6	DA	F6	FF	B6	54	F7	FF	.	.	T..
0020B0	76	BA	6A	01	0E	E8	00	00-B3	C4	0A	B3	7E	A4	01	74	V..	j..	~..t..
0020C0	03	E9	20-03	BB	46	F2	F7-AE	BC	F6	01	B6	EA	F6	BB	.	.	F..	.
0020D0	46	CC	F7	AE	BC	F6	01	B6-DC	F6	83	BE	EA	F6	01	7D	F..	.	.
0020E0	0A	C7	B6	EA	F6	01	00	FF-B6	A2	F2	B1	BE	EA	F6	FE	.	.	.
0020F0	00	7E	0A	C7	B6	EA	F6	FE-00	FF	B6	A2	F2	B3	BE	DC	.	~..	.
002100	F6	00	7D	06	C7	B6	DC	F6-00	00	B1	BE	DC	F6	EE	00	.	3..	.
002110	7E	06	C7	B6	DC	F6	EE	00-BB	B6	EA	F6	05	FE	00	89	.	~..	.
002120	B6	DE	F6	BB	B6	DC	F6	05-EE	00	89	86	D2	F6	BB	B6	.	.	.
002130	EA	F6	D1	F8	40	B9	B6	D4-F6	BB	B6	DC	F6	D1	F8	05	.	@..	.
002140	F1	00	89	86	BE	F6	FF	B6-A0	F2	9A	00	00	00	00	B3	.	.	.
002150	C4	02	BB	B6	D4	F6	03	B6-E0	F6	BB	BE	BE	F6	03	BE	.	.	.
002160	D8	F6	57	56	FF	B6	BE	F6-FF	B6	D4	F6	FF	76	BA	6A	.	WV..	~..j..
002170	01	9A	00	00	00	00	83	C4-0C	9B	DF	06	0A	00	9B	D9	.	.	.
002180	00	9C	9C	76	01	C7	10	56-05	C7	0E	9F	C7	0B	56	05	.	v..	v..
002190	CF	04	56	26	CE	DD	56	55-86	48	56	54	85	CE	56	44	.	V&..	VU..HVT..VD
0021A0	CD	A3	56	31	CD	94	56	46-85	7B	56	4A	85	69	56	44	.	V1..	VF..(VJ..IVD
0021B0	C5	4E	56	05	C5	4B	56	05-C5	49	9C	C5	46	56	05	C5	.	NV..	KV..I..FV..
0021C0	41	56	05	C5	3B	56	05	C5-38	56	05	C5	36	9C	C5	33	AV..;	V..BV..6..3	
0021D0	56	05	C5	2E	56	05	C5	2D-9C	C5	29	56	05	C5	24	56	V..	V..	V..\$V
0021E0	05	C5	20	56	05	CD	15	56-51	C5	11	56	05	C5	05	9C	.	V..	VQ..V..
0021F0	C5	0C	56	05	C5	0A	9F	C5-07	56	05	C5	05	9F	C5	02	.	V..	.
002200	56	05	C4	FD	56	05	C4	F7-56	05	C4	F4	56	05	C4	F2	V..	V..	V..V..
002210	9C	C4	EF	56	05	C4	EA	56-05	C4	E4	56	05	C4	E1	56	.	V..	V..V..V..V..
002220	05	C4	DF	9C	C4	DC	56	05-C4	D7	56	05	CC	CD	56	51	.	V..	V..V..V..VQ
002230	C4	CA	9C	C4	C7	56	05	C4-C5	9F	C4	C2	56	05	C4	BC	.	V..	V..V..
002240	56	05	C4	B9	56	05	C4	B7-9C	C4	B4	56	05	C4	AF	56	V..	V..	V..V..
002250	05	C4	A9	56	05	C4	A6	56-05	C4	A4	9C	C4	A1	56	05	.	V..	V..V..V..
002260	C4	9C	56	05	C4	9A	9C	C4-97	56	05	C4	92	56	05	C4	.	V..	V..V..V..
002270	8E	56	05	C4	85	56	05	C4-82	56	05	C4	80	9C	C4	7D	.	V..	V..V..V..

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002280	56 05 C4 78 56 05 C4 72-56 05 C4 6F 56 05 C4 6D	V...xV..rV..oV..m
002290	9C C4 6A 56 05 C4 65 56-05 C4 63 9C C4 60 56 05	..jV..eV..c..`V.
0022A0	C4 5B 56 05 C4 57 56 05-C0 4D 56 51 C4 49 56 05	.IV..WV..MVQ.IV.
0022B0	C4 47 9C C4 44 56 05 C4-42 9F C4 3F 56 05 C4 3D	.G..DV..B..?V..=
0022C0	9F C4 3A 56 05 C4 35 56-05 C4 2F 56 05 C4 2C 56	..:V..5V../V...V.
0022D0	05 C4 2A 9C C4 27 56 05-04 22 56 05 C4 1D 56 05	..*..`V..``V...V.
0022E0	C4 19 56 05 C4 17 9C C4-14 56 05 C4 0F 56 05 CC	..V.....V...V..
0022F0	06 56 51 C4 03 9C C4 00-56 05 3F A0 AE 01 01 EB	.VQ.....V.;....
002300	08 9B DB BE 84 F2 90 9B-8B 86 D4 F5 3B 86 82 F6	.....+....
002310	89 86 98 F2 9B DF 86 98-F2 9B DC 0E 16 00 9B DE	....N.....+....
002320	F1 9B D9 9E 4E F7 90 9B-8B C6 2B 86 8B F6 89 96	.....
002330	98 F2 9B DF 86 98 F2 9B-DC 0E 16 00 9B DE F1 7B	.....
002340	D9 9E F4 F6 9B DF 06 0C-00 9B D9 00 9B DB BE BE	.....+....
002350	F2 90 9B 8B 86 BE F6 2B-86 AC F6 89 86 98 F2 9B	.....
002360	DF 86 98 F2 9B DC 0E 16-00 9B DE F1 9B D9 9E F8	.....+....
002370	F6 90 9B 8B C7 2B 86 AC-F6 89 86 98 F2 9B DF 86	.....
002380	98 F2 9B DC 0E 16 00 9B-DB F1 9B D9 9E E2 F6 9B	.....
002390	D9 86 4E F7 9A 00 00 00-00 89 46 D2 9B D9 86 F4	....N.....F.....
0023A0	F6 9A 00 00 00 00 89 46-CA 9B D9 Be F6 Fe 9A 00	....F.....
0023B0	00 00 00 89 46 CC 9B D9-B6 E2 Fa 9A 00 00 00 00,	....F...F...N..
0023C0	89 46 86 9B DF 46 D2 9B-DB A6 4E F7 9B DC 06 1E	.....
0023D0	00 9B D9 96 E6 F6 9B DC-16 06 00 9B DD DB 9B DF	.....t.....
0023E0	E0 9E 9B DD C1 9B DD CO-74 13 9B D9 86 E6 F6 9B	.....u.....
0023F0	DC 16 1E 00 9B DD DB 9B-DF E0 9E 75 14 9B DF 06	....b.....F..
002400	0A 00 9B DC 36 16 00 -9A-00 00 00 00 89 46 BB EB	H.....&.....
002410	4B 9B D9 86 E6 F6 9B DC-16 26 00 9B DD DB 9B DF	..V.....&....
002420	E0 9E 76 13 9B D9 96 E6-F6 9B DC 16 26 00 9B DD	....V".....
002430	DB 9B DF E0 9E 76 22 9B-D9 86 E6 F6 9B DE 0E OA	.....b.....
002440	00 9B DF 06 0A 00 9B DC-36 16 00 9B DE C1 9A 00	....F..F...F....
002450	00 00 00 89 46 BB FF 46-D2 9B DF 46 CA 9B DB A6	....
002460	F4 F6 9B DC 06 1E 00 9B-D9 96 E6 F6 9B DC 16 06	.....t.....
002470	00 9B DD DB 9B DF E0 9E-74 16 9B D9 86 E6 F6 9B	.....t..N..
002480	DC 16 1E 00 9B DD DB 9B-DF E0 9E 74 03 FF 4E CA	.....
002490	9B DF 46 CC 9B DB A6 FB-F6 9B DC 06 1E 00 9B D9	..F.....
0024A0	96 CE F6 9B DC 16 06 00-9B DD DB 1F 9C 79 01 C5	....V.....V...V...
0024B0	A7 56 05 C5 A5 9C C5 A2-56 05 C5 9D 56 05 C5 9B	....V...V...V...V...
0024C0	9C C5 98 56 05 C5 93 56-05 C5 8F 56 05 C5 86 56	....V.....~V..yV..
0024D0	05 C5 B3 56 05 C5 B1 9C-C5 7E 56 05 C5 79 56 05	.sV..pV..n..kV..
0024E0	C5 73 56 05 C5 70 56 05-C5 6E 9C C5 6B 56 05 C5	fV..d..aV..`V..X
0024F0	66 56 05 C5 64 9C C5 61-56 05 C5 5C 56 05 C5 58	V..NVQ.JV..H..EV
002500	56 05 CD 4E 56 51 C5 4A-56 05 C5 48 9C C5 45 56	..C..@V..>..;V..
002510	05 C5 43 9F C5 40 56 05-C5 3E 9F C5 3B 56 05 C5	6V..0V..-V..+..(
002520	36 56 05 C5 30 56 05 C5-2D 56 05 C5 2B 9C C5 28	V..#V..V...V..
002530	56 05 C5 23 56 05 C5 1D-56 05 C5 1A 56 05 C5 18	...V...V...VQ...
002540	9C C5 15 56 05 C5 10 56-05 CD 07 56 51 C5 04 9C	..V.....V...V..
002550	C5 01 56 05 C4 FF 9F C4-FC 56 05 C4 F6 56 05 C4	..V.....V...V..

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002560 F3 56 05 C4 F1 9C C4 EE-56 05 C4 E9 56 05 C4 E4 .V.....V...V...
 002570 56 05 C4 E1 56 05 C4 DD-56 05 C4 DA 56 05 C4 DB V...V...V...V...
 002580 9C C4 D5 56 05 C4 D0 56-05 C4 CE 9C C4 CB 56 05 ..V...V....V.
 002590 C4 C6 56 05 C4 C2 56 05-CC BB 56 51 C4 B5 56 05 ..V...V...VQ..V.
 0025A0 CC AE 56 51 C4 A8 56 05-CC A1 56 51 C4 9B 56 05 ..VQ..V...VQ..V.
 0025B0 CC 94 56 51 C4 BE 56 05-C4 89 56 05 C4 B6 56 05 ..VQ..V...V...V.
 0025C0 C4 84 9C C4 81 56 05 C4-7C 56 05 C4 70 56 06 C4 ..V...IV..CV..^
 0025D0 6B 56 05 C4 68 56 05 C4-66 9C C4 63 56 05 C4 5E KV..hv..f..cv..^
 0025E0 56 05 C4 50 56 06 C4 4B-56 05 C4 48 56 05 C4 46 V..FV..KV..HV..F
 0025F0 SF C4 43 56 05 C4 3E 56-05 C4 3B 56 05 C4 39 9C ..CV..IV..;V..9.
 002600 C4 36 56 05 C4 31 56 05-C4 25 56 06 C4 20 56 05 .6V..IV..XV.. V.
 002610 C4 1D 56 05 C4 1B 9C C4-18 56 05 C4 13 56 05 C4 ..V.....V...V...
 002620 05 56 05 C4 00 56 05 E9-A0 B4 03 01 92 00 9B DF ..V...V....V...
 002630 E0 9E 74 13 9B D9 86 CE-F6 9B DC 16 1E 00 9B DD ..t.....
 002640 D8 9B DF E0 9E 75 13 9B-DF 06 0C 00 9B DC 36 16 ..u.....
 002650 00 9A 00 00 00 00 89 86-A4 F4 EB 49 9B D9 86 CE ..I.....
 002660 F6 9B DC 16 26 00 9B DD-D8 9B DF E0 9E 76 13 9B ..&.....
 002670 D9 B6 CE F6 9B DC 16 26-00 9B DD D8 9B DF E0 9E ..#.....
 002680 76 23 9B D9 86 CE F6 9B-DE 0E 0C 00 9B DF 06 0C V#.....
 002690 00 9B DC 36 16 00 9B DE-C1 9A 00 00 00 00 89 86 ...6.....
 0026A0 A4 F4 FF 46 CC 9B DF 46-B6 9B D8 A6 E2 F6 9B DC ...F...F.....
 0026B0 06 1E 00 9B D9 96 CE F6-9B DC 16 06 00 9B DD D8 ..t.....
 0026C0 9B DF E0 9E 74 16 9B D9-B6 CE F6 9B DC 16 1E 00 ..t..N..F..
 0026D0 9B DD D8 9B DF E0 9E 74-03 FF 4E B6 C7 46 C2 01 ..T.....
 0026E0 00 C7 86 EE F6 00 00 83-7E F0 03 75 6B 8B 85 CO ..T..uk...
 0026F0 F6 3D 04 00 75 62 83 7E-A4 00 75 51 C7 86 C2 F6 ..=..ub..?..ub...
 002700 01 00 8B 46 CE 29 86 54-F7 83 BE 54 F7 02 7D 06 ...F.).T...T..?
 002710 C7 86 54 F7 02 00 83 BE-54 F7 1E 7E 06 C7 86 54 ..T....T..?..T
 002720 F7 1E 00 FF B6 CC F6 FF-B6 DA F6 FF B6 54 F7 FF ..T.....
 002730 76 BA 6A 01 0E EB 00 00-83 C4 0A FF B6 54 F7 FF V..j.....T..
 002740 B6 C2 F6 FF 76 A4 0E EB-00 00 83 C4 06 83 7E A4 ..v.....
 002750 01 75 05 C7 46 A4 01 00-83 7E F0 02 74 03 E9 FB :u..F....~..t...
 002760 08 8B 86 C0 F6 3D 01 00-74 1C 3D 02 00 75 03 E9 ..=..t.=..u..
 002770 76 04 3D 05 00 75 03 E9-86 07 3D 07 00 75 03 E9 v.=..u.=..u..
 002780 D4 08 E9 D7 08 90 FF 46-A4 B3 7E A4 01 7F 03 E9 ..F..~...
 002790 74 01 C7 46 A4 00 00 C7-86 C2 F6 00 00 FF B6 54 t..F.....T
 0027A0 F7 6A 00 6A 00 0E EB 00-00 83 C4 06 1E 6B E3 01 ..j..j.....h..
 0027B0 6A 00 9A 00 00 00 00 B3-C4 06 6A 01 0E EB 00 00 j.....j.....
 0027C0 83 C4 02 6A 00 6A 02 9A-00 00 00 00 83 C4 04 6A ..j.....j.....
 0027D0 01 6A 00 9A 00 00 00 00-83 C4 04 6A 00 9A 00 00 83 ..j.....
 0027E0 00 00 83 C4 02 6A 00 FF-76 BA 9A 00 00 00 00 83 ..j.h..j..v...v..
 0027F0 C4 04 6A 08 6B 80 00 6A-00 FF 76 BA FF 76 D0 9A ..j.....
 002800 00 00 00 00 83 C4 0A 6A-01 FF 76 BA FF 76 BE FF ..j.....
 002810 76 BA 9A 00 00 00 00 B3-C4 0B 6A 00 9A 00 00 00 V.....j.....
 002820 00 83 C4 02 6A 05 6A 01-FF B6 B0 F6 FF B6 C4 F6 ..j..j.....
 002830 FF 76 BA FF B6 D2 F6 FF-B6 DE F6 FF B6 DC F6 FF ..V.....V...

## EP 0 401 077 A2

002840 B6 EA F6 FF 76 BA 9A 00-00 00 00 B3 C4 14 6A 00 . . . . . V . . . . . J .  
 002850 6A 02 9A 00 00 00 B3-C4 04 6A 01 6A 01 9A 00 J . . . . . J . J . . .  
 002860 00 00 00 B3 C4 04 FF B6-D2 F6 FF B6 DE F6 FF B6 . . . . . . . . .  
 002870 DC F6 FF B6 EA F6 0E EB-00 00 B3 C4 08 0E EB 00 . . . . . . . . .  
 002880 00 FF 76 BA 6A 00 9A 00-00 00 00 B3 C4 04 FF 76 . . . . . V . . . . .  
 002890 BA 9A 00 00 00 00 B3 C4-02 FF 76 BA 6A 01 9A 00 . . . . . V . J . . .  
 0028A0 00 00 00 B3 C4 04 FF B6-A0 F2 9A 00 00 00 00 B3 . . . . . . . . .  
 0028B0 C4 02 6A 00 9A 00 00 00-00 B3 C4 02 FF B6 A0 F2 . . J . . . . .  
 0028C0 9A 00 00 00 00 B3 C4 02-FF B6 CC F6 FF B6 DB F6 . . . . . . . . .  
 0028D0 FF B6 54 F7 FF 76 BA 6A-00 0E EB 00 00 B3 C4 0A J . T . V . . . . .  
 0028E0 0E EB 00 00 FF 76 B6 FF-76 CC FF 76 C0 FF 76 D2 . . . . . V . . . . .  
 0028F0 FF B6 A4 F4 FF 76 B6 FF-36 0C 00 FF 36 CH 00 0E . . . . . V . . . . .  
 002900 EB 00 00 B3 C4 10 B3 7E-44 01 74 03 FF 4D 07 FF . . . . . . . . .  
 002910 00 6A 01 9A 00 00 00 00-B3 C4 04 6A 00 9A 00 00 J . . . . . . . . .  
 002920 00 00 B3 C4 02 FF B6 54-F7 FF B6 C2 F6 FF 76 A4 . . . . . T . . . . .  
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 002970 0E ES 00 00 53 C4 08 80-3E 04 00 00 75 03 E9 9D . . . . . J . . . . . U . . . . .  
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 002990 46 A2 40 75 11 1E 68 68-02 6A 01 9A 00 00 00 00 B9 20 20 BF . . . . . n . . . . .  
 0029A0 B3 C4 06 EB 6E 90 C7 B6-A6 F4 00 00 B9 20 20 BF . . . . . . . . .  
 0029B0 01 00 BD BE FC F6 16 07-F2 AB AA B3 86 A6 F4 03 . . . . . . . . .  
 0029C0 BD 86 FC F6 8B D8 BB FB-8C D0 B9 FF FF 38 C0 F2 . . . . . . . . .  
 0029D0 AE F7 D1 49 51 BD 86 FC-F6 16 50 FF 76 42 AB 9E M . . . . . V . . . . .  
 0029E0 4D 01 CF 6E 56 25 C7 69-9D CF 5A 56 30 C7 57 9D K . . . . . D V . . . . .  
 0029F0 C7 4B 9D 87 44 56 4F C7-40 9D CF 32 56 42 C7 2C . . . . . V E . . . V X . . . . V J  
 002A00 9D 87 1B 56 45 CF 10 56-25 C7 0B 9D 87 04 54 4A . . . . . V . . . V > . . V : . . .  
 002A10 CE F0 56 1D CE E6 56 3E-86 D3 56 3A C6 CF 9F C6 . . . . . V S . . V T . . V U . .  
 002A20 CB 9F 86 B4 56 35 86 AD-56 54 CE 93 56 55 CE 87 V 4 . . V Z . . q V > . d V . . Y  
 002A30 56 34 CE 7D 56 32 CE 71-56 3E CE 64 56 2E CE 59 V > . Q V . . J V D . 1 V A . Z  
 002A40 56 3E 86 51 56 2C 86 4A-56 44 CE 31 56 41 CE 25 V > . V + . V S . . V ' . .  
 002A50 56 3E CE 19 56 2B CD EF-56 53 CD E5 56 27 CD D2 V V . . V X . . V S . . V A . .  
 002A60 56 56 CD BD 56 58 CD B0-56 53 CD A6 56 41 CD 9A V X . . V E . . V Z . . . . V Y  
 002A70 56 3E 85 90 56 45 CD 85-56 25 C5 80 9D 85 79 56 J . . V J . . V T . . V . . V  
 002A80 4A 85 1A 56 4A 85 08 56-54 C4 A5 56 05 C4 A2 56 . . . . . V . . . V . . V . . V .  
 002A90 05 C4 A0 9C C4 9D 56 03-C4 98 56 05 C4 92 56 05 . . . . . V . . . V . . V . . V .  
 002AA0 C4 8F 56 05 C4 8D 9C C4-8A 56 05 C4 85 56 05 C4 . . . . . V . . . V . . W V . . 1  
 002AB0 83 9C C4 B0 56 05 C4 7B-56 05 C4 77 56 05 CC 6C V Q . . H V . . f . . c V . . a .  
 002AC0 56 51 C4 68 56 05 C4 66-9C C4 63 56 05 C4 61 9F ^ V . . V . . Y V . . T V . .  
 002AD0 C4 5E 56 05 C4 5C 9F C4-59 56 05 C4 54 56 05 C4 N V . . K V . . I . . F V . . A  
 002AE0 4E 56 05 C4 4B 56 05 C4-49 9C C4 46 56 05 C4 41 V Q . . V . . 8 V . . 6 . . 3 V  
 002AF0 56 05 C4 3B 56 05 C4 3B-56 05 C4 36 9C C4 33 56 V . . ; V . . 8 V . . 6 . . 3 V  
 002B00 05 C4 2E 56 05 CC 24 56-51 C4 21 9C C4 1E 56 05 . . . . . V . . \$ V Q . ! . . V .  
 002B10 C4 1C 9F C4 19 56 05 C4-13 56 05 C4 10 56 05 C4 . . . . . V . . . V . . . V . . V .

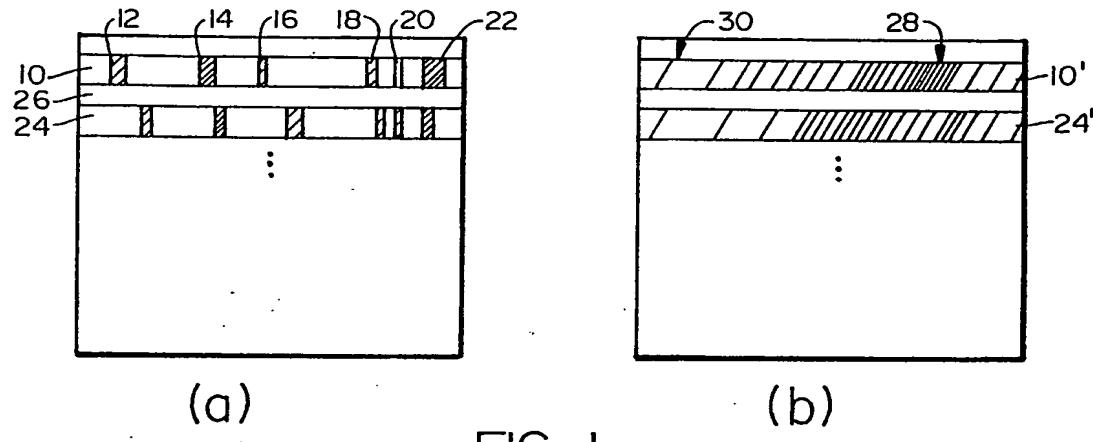


FIG. 1

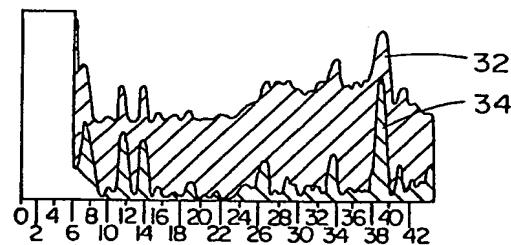


FIG. 2

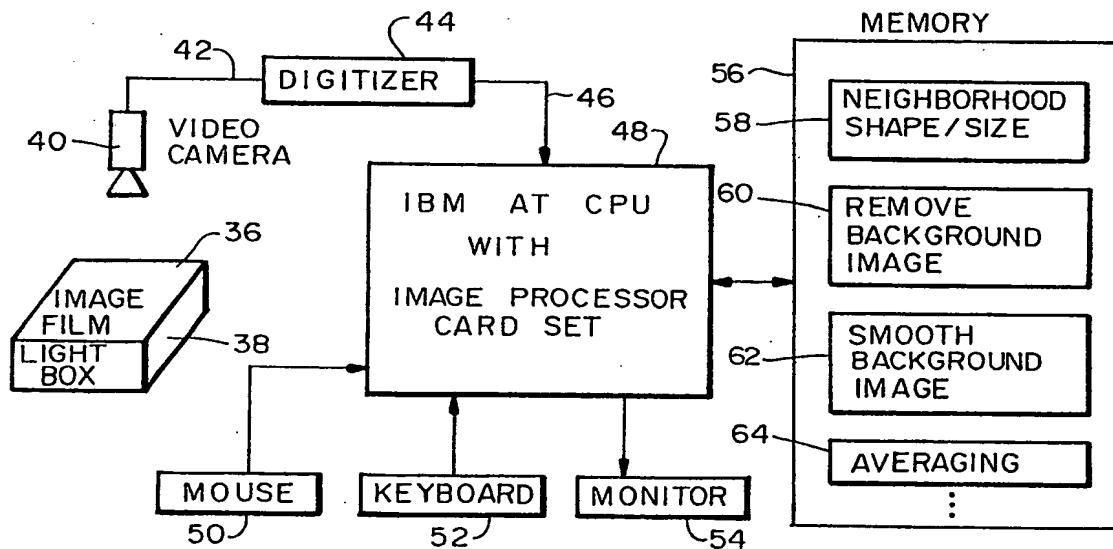


FIG. 3

Neu eingereicht / Newly filed  
Nouvellement déposé

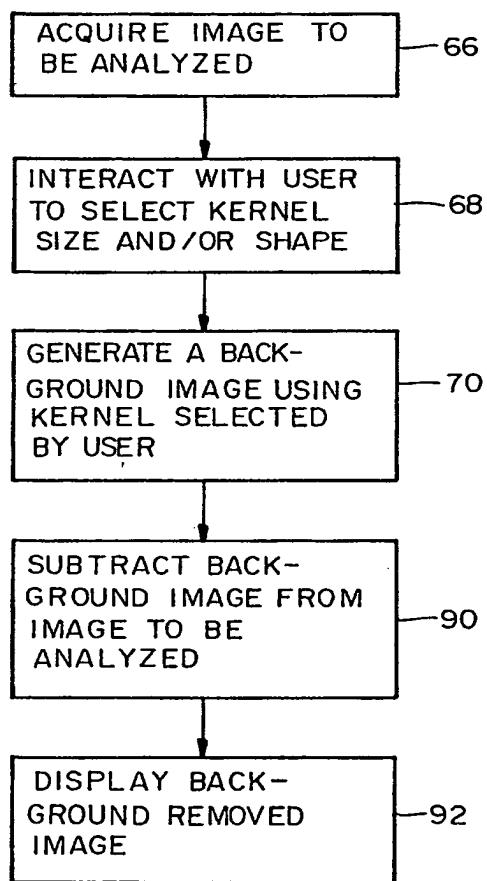


FIG. 4

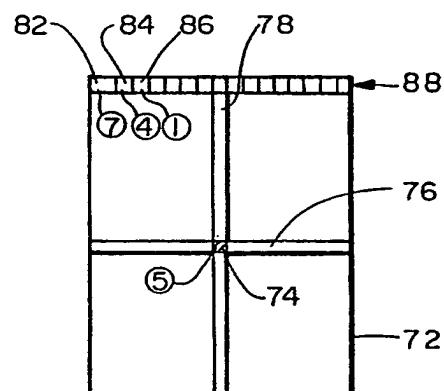


FIG. 5

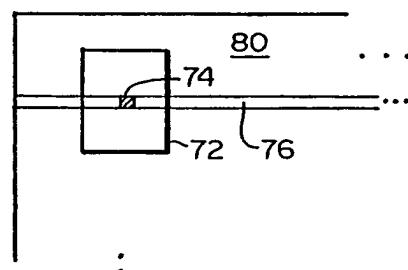


FIG. 6

Neu eingereicht / Newly filed  
Nouvellement déposé

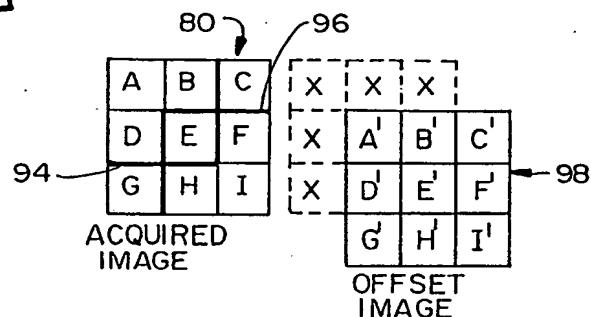


FIG. 7

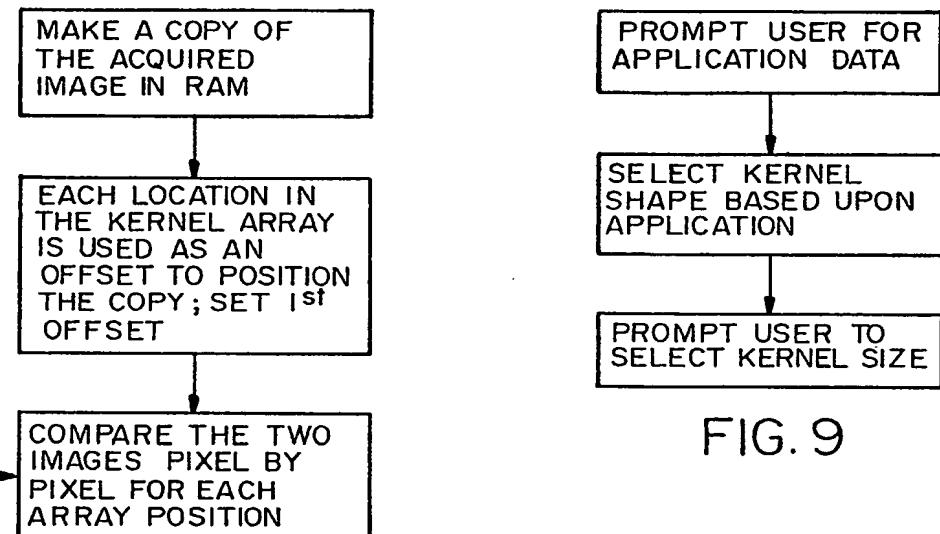


FIG. 9

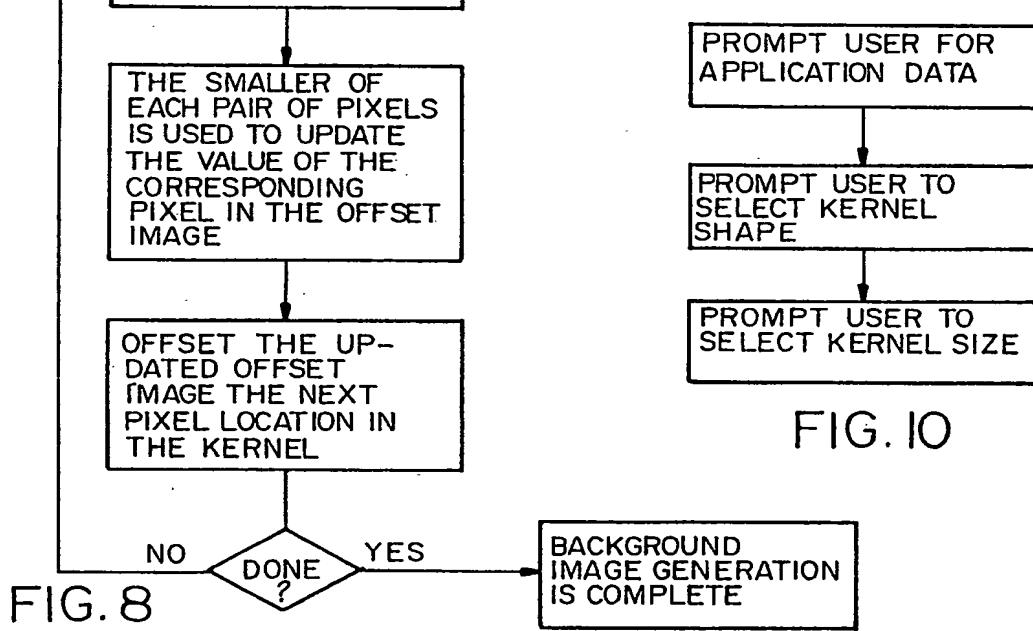


FIG. 8

FIG. 10

Neu eingereicht / Newly  
Nouvellement déposé

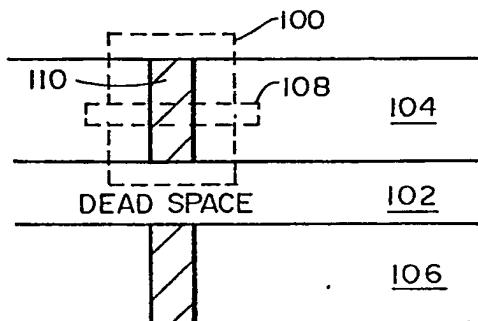


FIG. 11

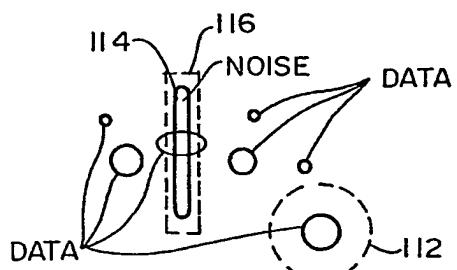


FIG. 12

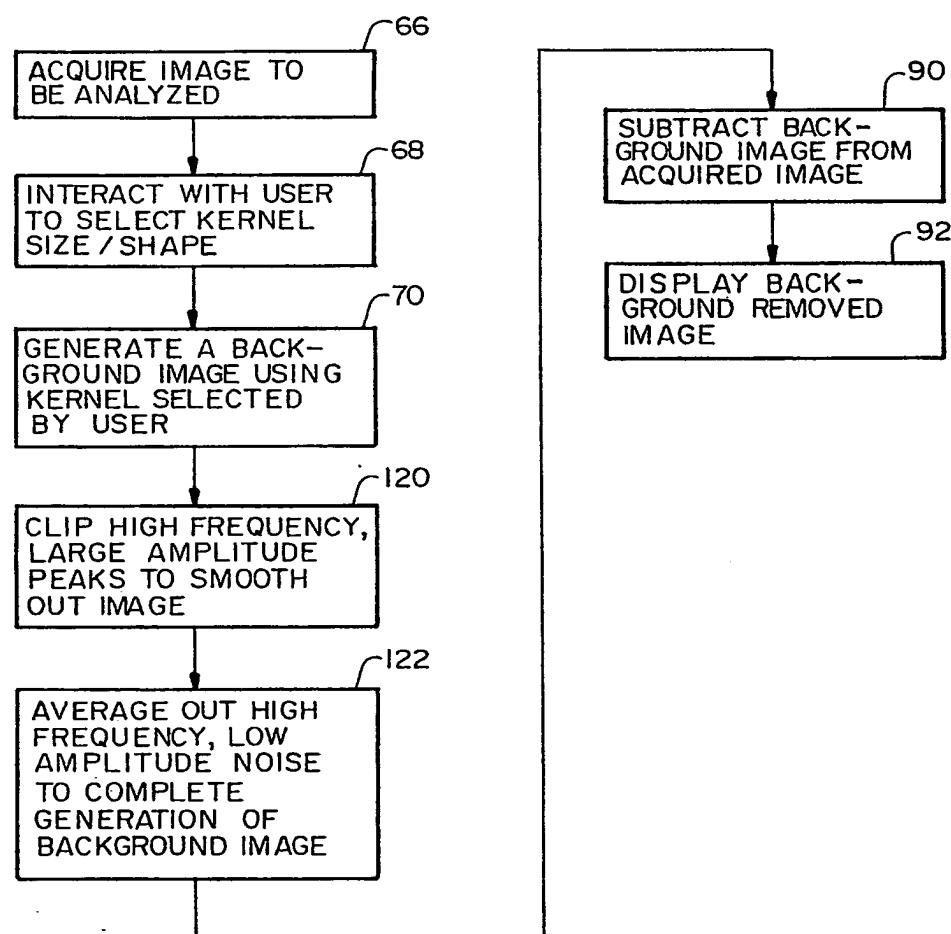
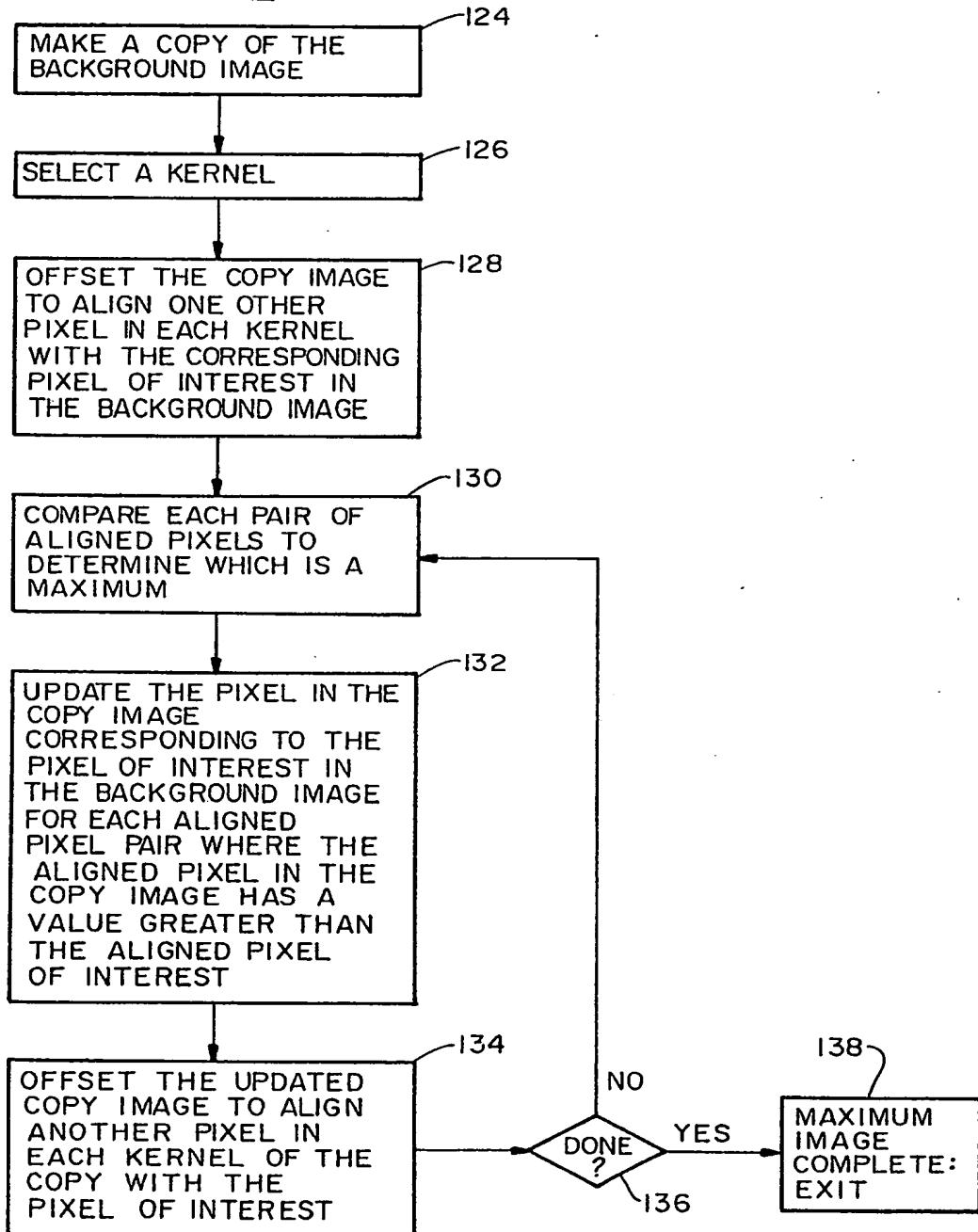


FIG. 13

Neu eingereicht / Newly filed  
Nouvellement déposé



GENERATE MAXIMUM IMAGE FROM BACKGROUND IMAGE

FIG. 14

Neu eingereicht / Newly filed  
Nouvellement déposé

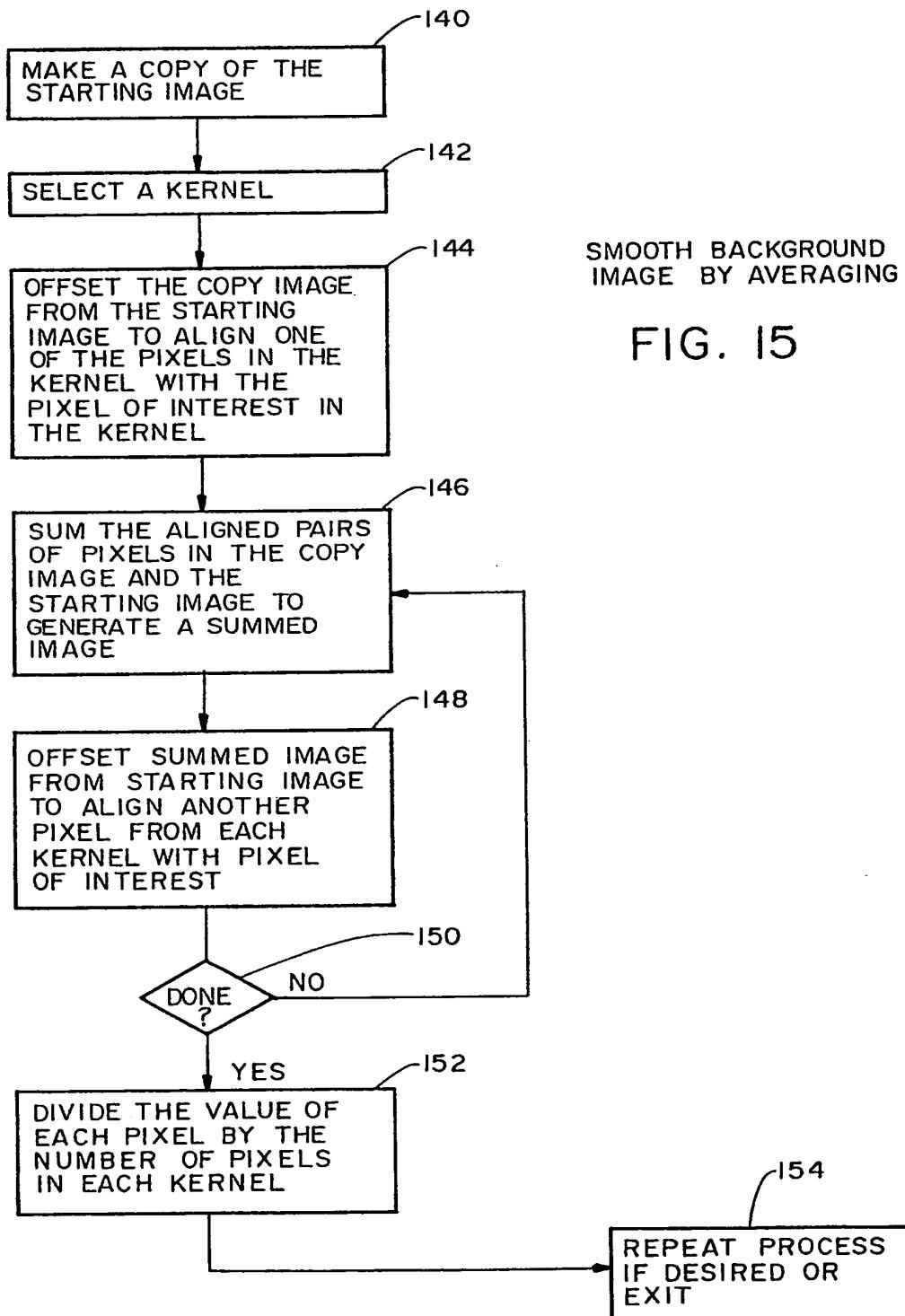


FIG. 15

Neu eingereicht / Newly filed  
Nouvellement déposé

## PROCESS FOR GENERATING A PERCENT CHANGE IMAGE

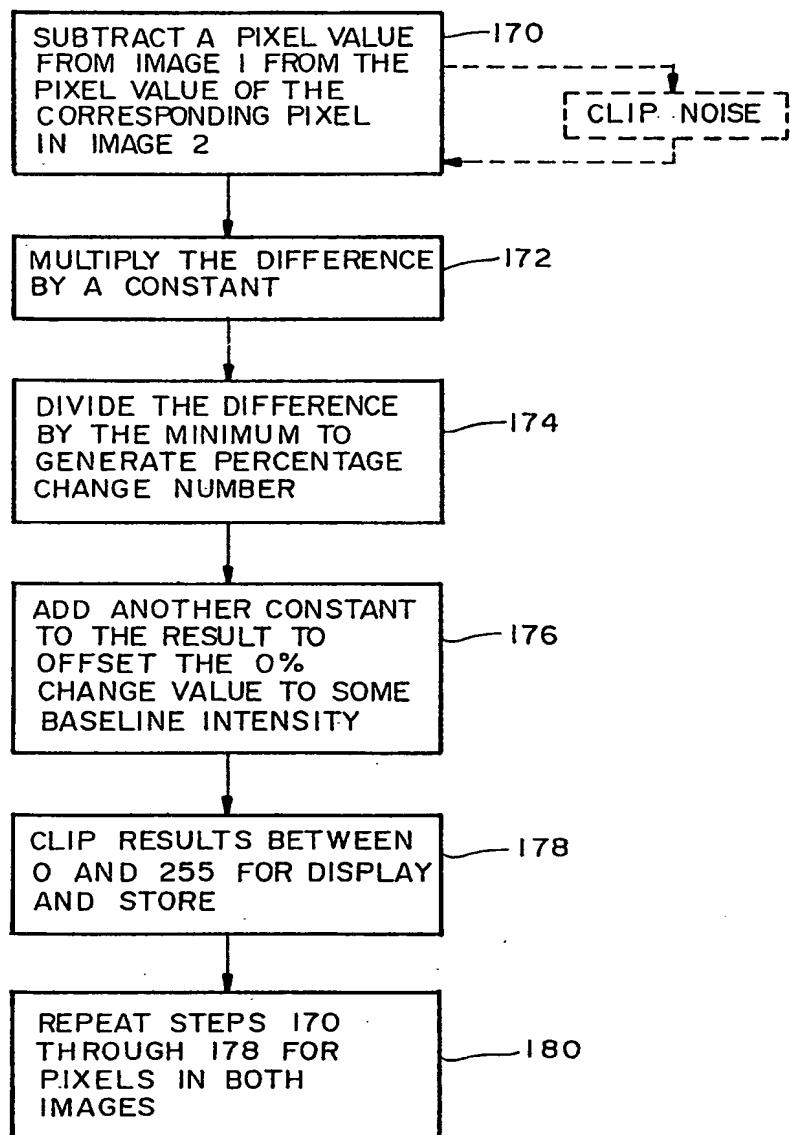
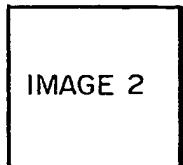


FIG. 16

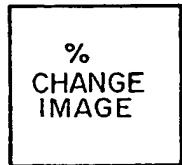
Neu eingereicht / Newly filed  
Nouvellement déposé



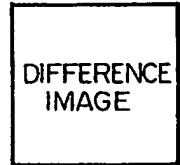
(a)



(b)

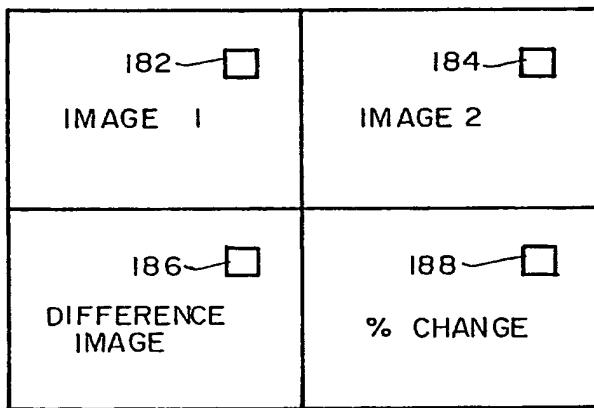


(c)



(d)

## QUAD DISPLAY



(e)

FIG. 17

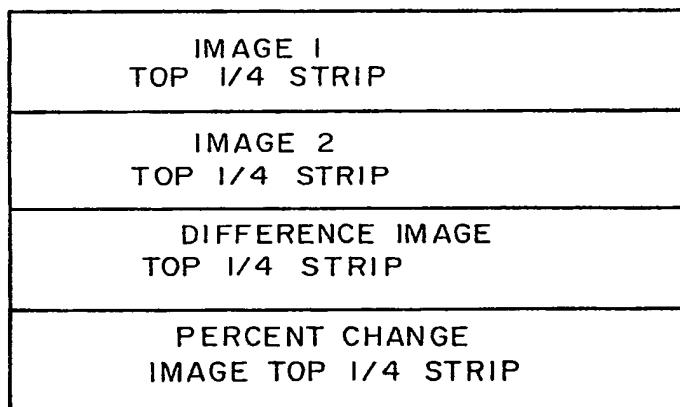


FIG. 18

Neu eingereicht / Newly filed  
Nouvellement déposé

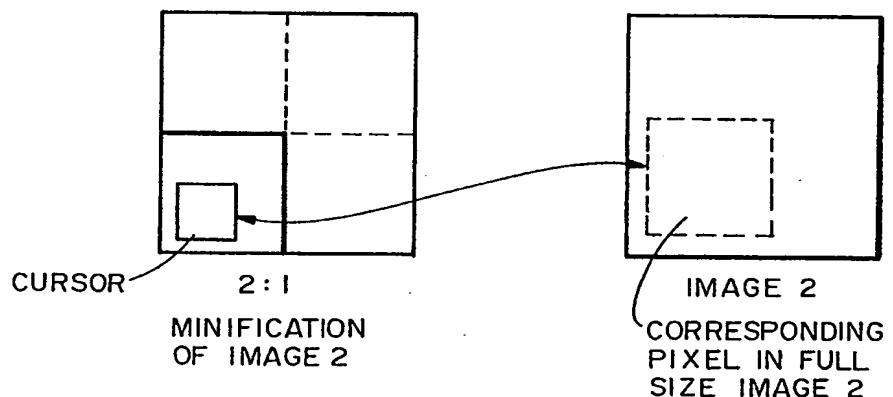


FIG. 19

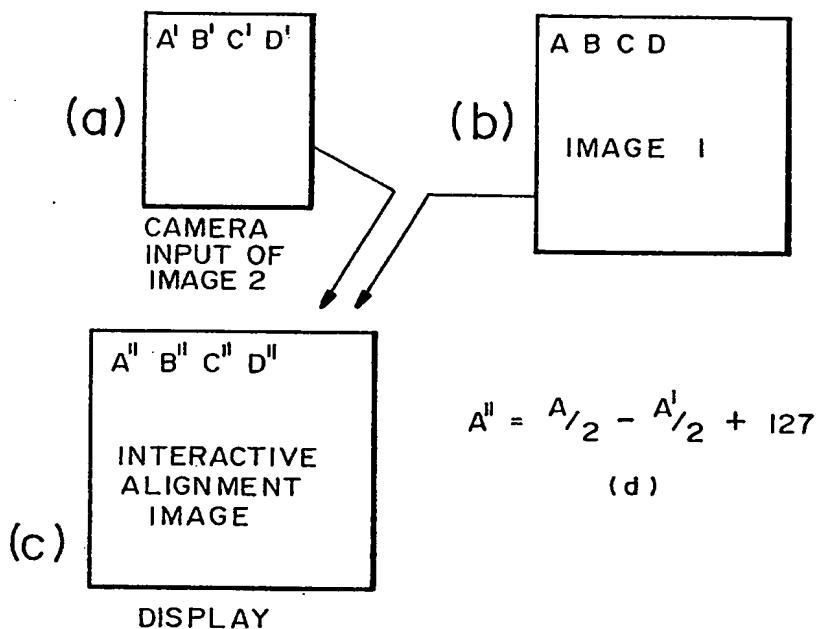


FIG. 20



(19) Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) Publication number:

0 401 077 A3

(12)

## EUROPEAN PATENT APPLICATION

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(43) Date of publication of application:  
05.12.90 Bulletin 90/49

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San Jose, California(US)

(84) Designated Contracting States:  
CH DE FR GB IT LI NL SE

(74) Representative: Kopacz, William James  
83, Avenue Foch  
F-75116 Paris(FR)

(88) Date of deferred publication of the search report:  
14.10.92 Bulletin 92/42

### (54) Method and apparatus for removing noise data from a digitized image.

(55) An apparatus and method for removing background noise and high frequency noise from an image by comparing each pixel in the image with neighboring pixels defining a variably shaped and

sized kernel. The size and shape of the kernel are optimized for the particular characteristics of the data to be analyzed.

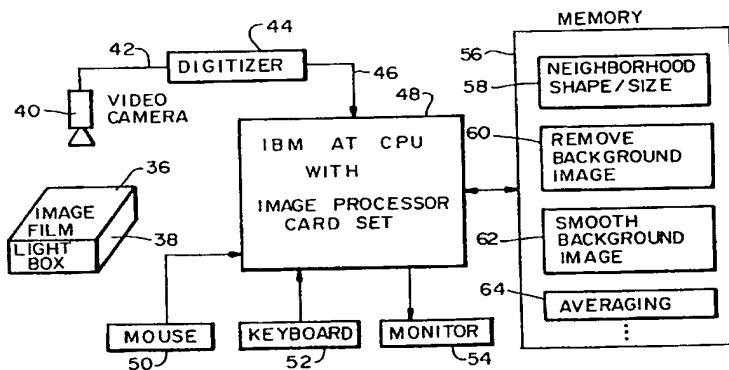


FIG. 3

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**European Patent  
Office**

## EUROPEAN SEARCH REPORT

**Application Number**

EP 90 40 1304  
PAGE1

DOCUMENTS CONSIDERED TO BE RELEVANT			PAGE1
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 823 194 (TADAQAKI MISHIMA ET AL)	1-3, 8, 31, 34-36	G06F15/68 H04N1/40
Y	* abstract *	4, 11, 14, 15	
A	* column 4, line 31 - line 38 * * column 13, line 67 - column 14, line 33; claims 1, 2, 6, 8, 9, 11 *	16, 17	
	---		
Y	SIGNAL PROCESSING. vol. 15, no. 3, October 1988, AMSTERDAM pages 249 - 258; P.W. VERBEEK ET AL: 'Low-level Image Processing by Max-Min Filters'	4, 11	
A	* page 249, left column, line 1 - page 250, left column, line 3 * * Section 4 *	1, 8, 16, 17, 31, 34	
	---		
Y	PROCEEDINGS OF THE EIGHTH ANNUAL CONFERENCE OF THE IEEE/ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY vol. 2, November 1986, FORT-WORTH, TEXAS pages 1113 - 1117; R.M. RANGAYYAN ET AL: 'Pixel-independent image processing techniques for enhancement of features in mammograms'	14, 15	
A	* page 1114, left column, paragraph 2 - right column, paragraph 1 *	1, 8, 16, 17, 31, 34	G06F H04N G06K
D, A	PROCEEDINGS OF S.P.I.E. METHODS OF HANDLING AND PROCESSING IMAGERY vol. 757, 1987. pages 40 - 47; H.G. RUTHERFORD AT AL: 'Object Identification and Measurement from Images with Access to the Database to Select Specific Subpopulations of Special Interest' * abstract * * page 46, line 20 - line 23 *	1, 8, 16, 17, 31, 34	
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		-/-	
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
BERLIN	04 AUGUST 1992	NICHOLLS J.	
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone	T : theory or principle underlying the invention		
Y : particularly relevant if combined with another document of the same category	E : earlier patent document, but published on, or after the filing date		
A : technological background	D : document cited in the application		
O : non-written disclosure	L : document cited for other reasons		
P : intermediate document	& : member of the same patent family, corresponding document		

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## EUROPEAN SEARCH REPORT

Application Number

EP 90 40 1304  
PAGE2

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. CL.5)			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim				
A	<p>COMPUTER. vol. 16, no. 1, January 1983, LONG BEACH US pages 22 - 34; S.R. STERNBERG: 'Biomedical Image Processing' * the whole document *</p> <p>-----</p>	1,8,16, 17,31,34				
			TECHNICAL FIELDS SEARCHED (Int. Cl.5 )			
<p>The present search report has been drawn up for all claims</p> <table border="1"> <tr> <td>Place of search BERLIN</td> <td>Date of completion of the search 04 AUGUST 1992</td> <td>Examiner NICHOLLS J.</td> </tr> </table> <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  .....  &amp; : member of the same patent family, corresponding document</p>				Place of search BERLIN	Date of completion of the search 04 AUGUST 1992	Examiner NICHOLLS J.
Place of search BERLIN	Date of completion of the search 04 AUGUST 1992	Examiner NICHOLLS J.				